THE UNIVERSITY OF CHICAGO

"ALCOHOL IN THE GARDEN OF EDEN": CIDER AS ALTERNATIVE AGRICULTURE IN EARLY MODERN ENGLAND, 1650-1766

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF HISTORY

BY

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CHICAGO, ILLINOIS

AUGUST 2020

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ACKNOWLEDGEMENTS

This dissertation was made possible through the support of many individuals and institutions. I am grateful for the financial assistance afforded to me through the Nicholson Center for British Studies, the University of Chicago's History Department and Division of the Social Sciences, Winterthur Library's Research Fellowship program, the Morris Fishbein Center for the History of Science and Medicine, and the Folger Library's Collaborative Research Initiative. My collection of manuscript sources was made legible through two grants by the Mellon Foundation to attend paleography courses at the Folger and Huntington libraries, without which I would still be staring numbly at pages of early script.

The staff at the libraries and research institutions where I collected material for this dissertation were invariably kind and helpful, though I particularly wish to thank Tom Guiler and Laura Parrish of Winterthur and Heather Wolfe of the Folger Library. My sincere thanks extends to the many people who assisted me at the British Library, National Archives at Kew, Royal Society of London, Somerset Records Office, Bodleian Library, Herefordshire Archive and Records Office, Cider Museum of Hereford, Gloucestershire Archives, Bristol Archives, Devon Records Office, Cornwall Records Office, Royal Institution of Cornwall, Folger Shakespeare Library, Library of Congress, Huntington Library, Winterthur Museum, Garden and Library, and Library Company of Philadelphia. My time combing through sources in these institutions was always a source of great pleasure.

A host of friends and colleagues at the University of Chicago have molded my project over innumerable conversations, provided feedback on my written work, cheered me on, and kept me sane by occasionally nudging the conversation away from cider. Thank you to Erin McCullugh, Enrique Dávila, Jaewoong Jeon, Ryan Dahn, Michaela Appeltova, Kyle Gardner,

Kirsty Montgomery, Timothy Crimmins, Adam Rowe, Zachary Leonard, Emily Webster, and many more. I am especially appreciative of John Cropper, whose camaraderie, advice, and writing feedback were invaluable. I appreciate you all offering me the opportunity to enjoy cider beyond a narrow, academic scope.

I am indebted to my committee readers, Adrian Johns and Steven Pincus, for their invaluable feedback on this project and the direction it will take afterward. Most of all, this dissertation came to fruition through the patient mentorship, cajoling, and incisive critiques of my chair, Fredrik Albritton Jonsson. I am truly grateful for your efforts on my behalf.

Finally, my family has been a wellspring of support. I would like to offer love and gratitude to my partner, Stephanie, for her work on reading drafts, as well as the labor she extended to me of a more emotional kind through the inevitable highs and lows of dissertation writing. To my parents, Barbara and Patrick, I am forever thankful for your encouragement of my academic undertakings, unconditional love, and generosity. And to my sister, Meghan, you have always been a source of inspiration and joy to me: our backpacking trips, chats over the phone, and pictures of your beautiful young son, Holden, grounded me throughout the process.

ABSTRACT

This dissertation demonstrates that cider was a particularly important commodity in early modern England, one whose modern underappreciation has led to a historiographic overemphasis on broad economic trends at the expense of intellectual currents in the agricultural sector. Cider sits at an intersection between competing approaches to understanding the British Agricultural Revolution that tend to prioritize either the introduction of new methods and crops, or a dramatic rise in absolute volumes. The study of cider in seventeenth-century England makes such binaries unhelpful, as it was produced in new areas and with new methods while undergoing a corresponding production increase that predated the eighteenth-century takeoff in staple agricultural goods. The observation that other *alternative* crops of this period exhibited similar dynamics has been noted by some historians, notably Joan Thirsk, who argued that efforts in the alternative sectors in seventeenth-century England demonstrate that highly productive energy was being poured into agriculture prior to the Agricultural Revolution. However, this project ultimately disagrees with one of the primary causal mechanisms utilized in Thirsk's history to explain why some goods were favored in the early period over those that comprised the bulk of eighteenth-century production increases: that is the importance of extended periods of high or low staple good prices in compelling the turn towards alternative crops. I argue that social concerns and intellectual promotion by promoters were ultimately the most significant determinants in cider's cyclical rise and decline. Understanding cider in this period as primarily an intellectual project rather than merely one of many emerging alternative goods with perceived economic value allows historians to more fully grasp the impact the drink's production had on the enclosure movement, state weakness and attempts to impose legibility, and the ideological fault lines within the social programs imagined by "improver" agriculture writers.

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INTRODUCTION

Botanist and Oxford registrar Ralph Austen has mostly slipped into obscurity today. However, in the heady years of the Cromwellian Protectorate he was a central figure bound up in a larger political, spiritual, and scientific drive towards reforming English agriculture. The intense turmoil of the period convinced many religious Independents like Austen that only a comprehensive approach to all aspects of English society could manifest the new city on a hill they sought to build. To this end, Austen dedicated himself specifically to the propagation of fruit trees and their main agricultural byproduct, cider.

Austen was well positioned to receive support for this project. His contacts with "intelligencer" Samuel Hartlib gave him access to Hartlib's influential network of intellectual reformers, for whom agriculture was a top priority. Though Polish by birth, Hartlib was at the nexus of virtually every serious Independent reform project of Commonwealth-era England, and it was to him that Austen dedicated the first edition of his *A Treatise of Fruit-Trees*.[1] In addition to Austen's reformist connections, his mother's cousin was none other than Parliamentarian general Henry Ireton, son-in-law to Oliver Cromwell. It was on the basis of this relation that Austen had been appointed to his registrar position on the expectation that he would watch over any recalcitrant Oxford royalists. Austen's many petitions for state financial assistance made frequent mention to his thoroughness in this role. Nonetheless, his entreaties met with little success since he never stopped pleading his case of poverty up until his death in 1676. Despite this professed financial hardship, Austen managed to amass a considerable estate by the time of his death. The properties at his death included an Oxford orchard, a well-regarded production

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[1] Ralph Austen, *A Treatise of Fruit-Trees, Shewing the manner of Grafting, Setting, Pruning, and Ordering of them in all respects* (Oxford: Printed for Tho. Robinson, 1653).

cidery, a cider house for public consumption with a second one being built around the time of his death, a large business selling thousands of cider-tree grafts at a time, and a reputation as one of England's preeminent ciderists.[2]

While Austen was working at his cider projects, not far away in a London suburb a different type of horticultural project was taking form under the hand of royalist John Evelyn. Recognizing that he was perhaps pushing too far in agitating the Parliamentarian "rebels" with his thinly veiled political writings, Evelyn instead dedicated himself to his sprawling, unpublished gardening work, *Elysium Britannicum*. He also translated other gardening works into English like *The French Gardener* and *The Manner of Ordering Fruit-Trees*. These works established Evelyn's bona fides on the matter, eventually culminating in his forestry masterwork, *Sylva, or A Discourse of Forest-Trees*.[3]

Although the main body of *Sylva* was dedicated to the topic for which the Royal Navy had commissioned Evelyn to write it, namely the preservation and extension of what was perceived to be England's quickly vanishing timber resources, this topic intersected with his very apparent interest in cider propagation. In addition to favorable mentions in the main body of *Sylva* of the role that cider would play as an added encouragement to tree planting, Evelyn appended a large secondary work on cider to the end of the text. At the urging of the newly formed Royal Society, Evelyn coordinated closely with his colleague John Beale to write and compile *Pomona, or, An appendix concerning fruit-trees in relation to cider*, a collection of at

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[2] "Ralph Austen probate inventory, taken November 28, 1676," and "Ralph Austen will, proved December 11, 1676," in *Inventories and Wills 1436-1818*, Bodleian Library.

[3] Nicolas de Bonnefons, *Le Jardinier François*, trans. John Evelyn as *The French Gardener: instruction how to cultivate all sorts of fruit trees and Herbs for the Garden* (London: Printed by J.C. for John Crooke, 1658); Sieur Le Gendre, *Manière de cultiver les arbres fruitiers, trans. John Evelyn as The Manner of Ordering Fruit-Trees, (London: Printed for Humphrey Moseley, 1660);* John Evelyn, *Sylva, or A Discourse of Forest-Trees and the Propagation of Timber, To which is annexed, Pomona, or, An appendix concerning fruit-trees in relation to cider, the making and several ways of ordering it* (London: Printed by Jo. Martyn and Ja. Allestry, 1664).

least eight different authors' often-contradictory views on cider making. Notably absent from the list of contributing authors was one of the best-known authorities on the topic, Ralph Austen.

Austen's omission appears merely curious given the overlap of his work with that of Beale and Evelyn. All three authors were keenly interested in enacting statutes to force landowners to plant cider trees, and Austen's petitions to the Council of State and Committee for Trade read as virtual mirrors to Evelyn's later proposals to the Royal Society. Based on the number of reprints, mentions in other manuals, and even common-placed transcriptions in diaries, early pamphlets on fruit tree propagation by Beale and Austen were by far the most famous examples of what was to become a large body of literature by the 1660s. Evelyn, Beale, and Austen were all also close correspondents with Samuel Hartlib, who in his usual fashion exhorted the writers to collaborate and smooth over differences when they emerged. And indeed, differences did emerge.

"Mr. Austin" could not be completely ignored in *Pomona*, which despite allowing him the underwhelming compliment of being "industrious," only mentioned Austen in two instances, both times in order to disagree with him on specific production techniques.[4] Hartlib's personal correspondence reveals the preceding strain between Beale and Austen, ranging from small complaints about Beale selecting incompetent figures to gather grafts, to more serious concerns that their disagreement was causing significant "distresse" and potentially leading people to suspect Beale of the "vanity of falsehood." Apparently Hartlib asked Beale to explain himself, because a chastened Beale replied with an apology and requested that Hartlib "mediate" between himself and Austen.[5] If such a mediation took place, it appears to have been unsuccessful

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[4] John Evelyn, ed., *Pomona, or, An appendix concerning fruit-trees in relation to cider, the making and several ways of ordering it* (London: Printed by Jo. Martyn and Ja. Allestry, 1664)., 11, 34.

[5] Ralph Austen, *Ralph Austen to Samuel Hartlib, May 3, 1658*. Letter. From Sheffield University, *Hartlib Papers*, 45/2/1A-2B: 2A; John Beale, *John Beale to Samuel Hartlib, February 23, 1657*. Letter. From Sheffield University,

because mentions of the other person in both Beale and Austen's letters dwindle dramatically after 1659. Years later, in a letter to Royal Society founding member Henry Oldenburg, Beale trumpeted that "Mr Evelyn's business and mine doth prosper wonderfully in many places of England," and yet in the same message passed along word that Austen was complaining of poverty and asking for Royal Society relief. In response, Beale sent Austen "a small mite" and sharply added for good measure that "the RS had their hands full enough & thanks little enough from some in Oxford. Who dares do as well for themselves, & us in & about Cambridge, as these do at Oxford."[6] The message was a clear indication that Austen was viewed with hostility by Beale and was not regarded as a collaborator by those in the Royal Society, despite their intersecting undertakings.

A personal spat between two gardeners, ostensibly over grafting methods and apple varietal selection, might appear a minor issue on the surface. And yet, the contours of the debate were actually much deeper. The differences between Austen and Beale were proxies for divides on heated topics, including the need to revolutionarily "prune" the tree of state of its dead branches between supporters and detractors of the Commonwealth and Restoration governments. Another common point of contention with significance that extended beyond the immediate point of contention revolved around whether producing high-alcohol-content cider as a replacement for French wine imports was desirable or best understood as a surrender to luxury at the expense of physically and spiritually wholesome low-strength cider. Social questions, too, were bound in the production process, as on whether cider should be made with the fruit that would produce the best beverage (that is, from inedible "cider apples"), or whether to take into

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Hartlib Papers, 62/22/1A-4B; John Beale, *John Beale to Samuel Hartlib, May 8, 1658*. Letter. From Sheffield University, *Hartlib Papers*, 52/26A-43B.

[6] John Beale, *John Beale to Henry Oldenburg, August 6, 1671*, Letter. From B.L. Add. MS. 4294, ff. 16.

account the qualities of the apple base as an eating good; these two approaches would thus either provide a failsafe food store for the worthy poor in times of famine, or alternatively an inducement to pillaging thieves, depending on one's outlook. Finally, cider writers directed their manuals towards differing audiences or suggested particular types of improvements that were suitable for either forward-thinking landowners, or common husbandmen and renters but not always both. Thus, cider promotion revealed elements of the writer's holistic approach towards *improvement* as a broader social project, highlighting only one area of many where the beverage's history in England provides fertile ground for historical inquiry.

I. The Rise of Alternative Agriculture: Cider as Counterexample

Cider's decline from the mid-sixteenth century until its re-popularization in the middle of the following century are loosely tied to larger trends in agriculture, especially the price of staple cereal crops and meat. When the price of these goods is depressed well below historical averages for an extended period of time, pressures build to focus productive efforts into alternative agricultural products. Joan Thirsk provided the conceptual framework necessary to view the period 1650-1750 as significant for innovative efforts deployed in these areas. "Alternative agriculture" is a term adopted from her description of periods when farmers are forced to turn to the production of substitute crops, such as cider, in order to augment falling incomes from traditional sources. However, the example of cider suggests the limits to such an approach. Low grain and meat prices may have held sway in England from 1650-1750, but cider was already reemerging dramatically in the decades prior to this, ultimately forcing this dissertation to countenance broader intellectual concerns as the primary inducement towards cider in the early period. While low staple prices may have helped sustain the takeoff of cider to a limited extent

by provoking farmers to turn arable land into orchards, these same pressures would have made grain-based alcohols that competed with cider more competitive, further blunting the explanatory power of the alternative agriculture framework.

While I argue that the history of cider should give English historians occasion to reconsider how much weight is properly given to the importance of background economic factors in determining the pace and character of changes in the lead up to the British Agricultural Revolution, it is not my contention that the movement in prices was unimportant. As England haltingly settled into the new reality of protracted low grain and meat prices after 1650, a significant number of alternative agricultural goods became increasingly attractive to would-be producers. Thirsk identified rapeseed, woad, and hops as commodities that met with great success during this period, while efforts to cultivate madder, mulberries for silk, safflower, weld, and English grape vines produced mixed results or outright failure.[7] However, of all the alternative agricultural products and procedures that were significantly developed in England in the seventeenth century, few benefited from as varied, widespread, and seemingly efficacious support by contemporaries as fruit trees and their main agricultural byproduct, cider. My dissertation recaptures the importance that contemporaries themselves ascribed to cider for the benefit of agricultural and food studies histories.

While appropriate economic conditions helped sustain the long-term prospects of a larger trend towards alternative agricultural products, the intellectual backing for this transition precipitated and accelerated the trend. The force of *custom* would have made it difficult for a

[7] Thirsk gives an abbreviated list of other endeavors from this period: rabbits, turnips, sowthistles, clover, sainfoin, potatoes, artichokes, pumpkins, fennel, cabbages, Roman beans, liquorice, saffron, French peas, mustard seed, teasels, madder, osiers, willow, French furze, hops, flax, musk melons, weld, coriander, aniseed, cumin, canary seed, asparagus, bees, silkworms, and flowers. Joan Thirsk, *Alternative Agriculture: A History from the Black Death to the Present* (Oxford: Oxford University Press, 1997), 38-39, 72-139.

farmer to abandon the methods and crops that generations of his forbearers had utilized, even in the face of economic stress. Thirsk tended to highlight the difficulties posed for farmers as they were forced to turn away from staple production out of expediency, often to the point of underestimating the intellectual desirability such projects held for farmers in their own right. Rather than merely "enabl[ing] them to survive until the old order returned," alternative crops were frequently adopted by growers well before the economic situation forced their hand.[8]

One can see encouragement for cider production materializing in ways that only vaguely considered the economic circumstances prevailing in this period. Cider's initial popularity among poor-relief advocates in the bad harvest years of the late 1640s and early 50s as an alternative to grain-based beer attests to its intellectual draw even before conditions were favorable. Later, after grain prices had fallen, cider improver writers continued to make arguments against those who would "drink [the nation's] very bread-corn," reflecting an ongoing political commitment to addressing supposed needs of the poor, but in a way that showed a level of detachment from evolving economic conditions facing England's lower orders. On this basis, Evelyn commended cider as an alternative, and proposed that "all our *Commons,* and *Waste-lands*" be planted with "one *Fruit-tree* but at every *hundred foot* distance for the benefit of the *Poor…* which would afford them a most incredible relief."[9] Whether the poor were better served by cheaper grain and passing access to occasional hedgerow fruit, while in the meantime their common lands were enclosed through the planting of such fruit trees, may strike the modern observer as a poor bargain. However, support for enclosure was a rare point of unanimity for cider improvers, and they came equipped to this debate with many ready arguments.

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[8] Thirsk, *Alternative Agriculture*, 2-3.
[9] Evelyn, *Pomona*, 2.

As efforts to consolidate farms and enclose communal lands necessitated the planting of new hedgerows, cider writers advocated in freighted tones against letting these boundaries become "wasted spaces." They warned against underutilization of these spaces for moral as much as economic reasons, as these wild spaces were viewed with suspicion for their corrupting qualities. Referring to hedges made of fruit trees as the "furniture" of a farm, Evelyn was one such promoter of planting cider trees in this role: "For after the Earth is duly cultivated, and pregnant with a Crop of Grain; it is only by the Furniture of such Trees as bear Fruit, that it becomes capable of any farther Improvement."[10] Cider-apple saplings grafted onto crab rootstocks, an otherwise agriculturally useless tree, were recognized to perform especially well in the marginal soils often reserved as boundary areas, therefore improving not only an unproductive space but also a plant with no other obvious utility. Cider apples thus became a favorite crop for advocates of enclosure, which progressed unevenly but steadily throughout this period.[11]

One of the primary questions for my dissertation, therefore, is to assess when and how ideas shape markets. Both the underlying economic situation of the hundred years from 1650 to 1750 and the ideas that shaped how people responded to these conditions were important factors in determining the course of cider's dramatic expansion. Without neglecting the long-term trends of food prices, wages, and rent prices, this project finds that in the case of cider these factors were not responsible for the initial turn towards cider in the first half of the seventeenth century. Contemporary debates are thus especially relevant in delineating the range of possibilities that

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[10] Evelyn, *Pomona*, 1.
[11] Jan De Vries, *The Economy of Europe in an Age of Crisis, 1600-1750* (Cambridge: Cambridge University Press 1976), 76-7.

were available to farmers, and therefore even the cider projects and petitions to state officials that came to nothing during this period are considered carefully below.

II. "Improvers," Pamphlet Culture, and Intellectual Debates in Agriculture

Thirsk and others have characterized the 1650s as a "watershed" moment for alternative agriculture because it was at this point that alternatives were beginning to be effectively promoted, notably at first by Hartlib's circle of writers, and eventually through quasi-governmental institutions such as the Royal Society as well as direct government legislation.[12] The stakes in this period were particularly high. Earlier historians have often been unattuned to the severity of the harvest failures of 1647-50, which were not only a concern for those on the margins, but a very real political threat to the new Republican regime.[13] Grinding along in the background was an explosion in population growth that took England from "a little over two million in 1500 to around five million in 1660."[14] A long list of rural problems that had been simmering for decades, occasionally boiling over into real confrontation, included not only the comparatively well-known resistance to the enclosure movement, but also agitation against inflation, rising unemployment, fen drainage, and other searches for "concealed land" that disrupted traditional land usage arrangements and agitated conflicting property claims. These and other issues combined to create a rural scene in the first half of the seventeenth century that was simmering with discontent, sometimes to the point of direct conflict.[15]

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[12] Thirsk, *Alternative Agriculture*, 43.
[13] Steve Hindle, "Dearth and the English revolution: the harvest crisis of 1647–50," *Economic History Review* 61 (2008): 67.
[14] Andrew McRae, *God Speed the Plough: The Representation of Agrarian England, 1500-1660* (Cambridge: Cambridge University Press, 1996), 12.
[15] Joan Thirsk, "Agrarian Problems and the English Revolution," in *Town and Countryside in the English Revolution*, ed. R.C. Richardson (Manchester, U.K.: Manchester University Press, 1992), 170-172.

It was into this tense situation that self-styled *improvers* inserted themselves. The term itself has a unique history in Western Europe, combining "legal, moral and economic implications in order to justify radical processes of change in the English countryside." Andrew McRae has argued that the problems afflicting rural England created a new reality that traditional language, based on the old manorial system, was no longer sufficient to describe and legitimize.[16] Hartlib and his fellow improvers responded with an "ideology of improvement" that sought to direct and encourage these new realities, which in turn met with active skepticism.[17]

While the conception of improvement contained core traits that allowed a wide range of practitioners to speak a common language, these surface similarities papered over significant divisions encompassing the scope, rapidity, and radicalism of various strains of improvement. The differences gestured at here cannot be placed easily on one binary spectrum; consider, for instance, the example of Francis Bacon, whom many later improvers consciously imagined themselves to be following. Bacon's project was at once radical in its scope, the novelty of advancements considered, and even its theological implications. On the other hand, Bacon could be institutionally conservative. He was a committed Royalist who would have had little in common with Ralph Austen's desire to revolutionary prune the tree of state, making the more obvious political distinctions between Royalists and Parliamentarians in the 1650s and 60s a loose but fraught place to begin one's inquiry, at best.

One of the major problems for Hartlib and his circle was the diminished credibility public improvers faced as a result of the efforts of "projectors" and their "projects" of the late sixteenth

[16] Andrew McRae, "Husbandry Manuals and the Language of Agrarian Improvement," in *Culture and Cultivation in Early Modern England: Writing and the Land*, ed. Michael Leslie and Timothy Raylor (Leicester: Leicester University Press, 1992), 35-36.
[17] Di Palma, "Drinking cider in paradise: science, improvement, and the politics of fruit trees," in *A Pleasing Sinne: Drink and Conviviality in Seventeenth-Century England*, ed. Adam Smyth (Rochester, N.Y.: D.S. Brewer, 2004), 173.

and early seventeenth centuries. These projectors tended to "improve" many areas of the rural landscape in ill-conceived ways that elicited determined resistance from local populations, and in many cases, projects were little more than monopolies held by self-interested rentseekers looking to acquire maximum profit. For the most part, Hartlib and his fellow writers attempted to distance themselves from these earlier efforts by disclaiming any personal financial interest and avoiding monopolies in their proposals, though ciderist Ralph Austen was a conspicuous counterexample to this trend.[18] A key distinction was that much, though certainly not all, of the written improver literature was public-facing and directed to farmers themselves rather than state officials who might consider granting a monopoly.

While the introduction and celebration of new farming methods and crops in texts during this period have long been noted by historians, the significance of these developments is not universally agreed upon. It has been argued by some historians that the introduction of these innovations was less the result of efforts by improvers writing largely to themselves, but rather a change brought about by the impersonal realities of labor market forces that compelled tenants to become more efficient.[19] The interplay between economic and political considerations in cider's rise will form the core of Chapters Two and Three, but the history of cider directly suggests that improvers noticeably impacted adoption strategies in ways that augmented, and at times contradicted, pure economic rationale. The focus on planting cider trees in hedgerows, in particular, stands out as a case where cider was used to advance two interwoven social projects: enclosure and a type of spiritual restoration of the landscape. By the end of the seventeenth century, cider orchards were increasingly propagated in former grain fields where the trees

[18] Koji Yamamoto, "Reformation and the Distrust of the Projector in the Hartlib Circle," *The Historical Journal* 55 (2012), 379-81.
[19] See, for example: De Vries, *The Economy of Europe*, 78.

preformed best, but for the early period the heavy emphasis by improver writers on hedgerow planting carried great weight.

The value of cider was widely held to extend to a wide range of fields; contemporaries had no doubt about the importance of cider and were explicit in detailing their faith in its economic, medicinal, spiritual, and social value in voluminous detail.[20] Some farmers in the countryside were listening to what writers in the metropole were saying, as evidenced not only by numerous reprintings of the best-known pamphlets and books, but also through the analysis of various manuscript sources created by the farmers themselves. The transcription of over 60 pages of cider tracts in Somerset farmer William Phelips' commonplace book in 1687, for instance, demonstrates that at least some rural cider producers were in fact closely reading and collecting these materials.[21]

While Thirsk balked at ranking various improver projects in terms of importance because contemporaries could not "tell which alternative crops and farming procedures would triumph," fruit trees, especially cider trees, were in fact one of the most significant alternative agriculture projects of this era in terms of both contemporary perception and impact.[22] It should not surprise a historical observer that the cider industry might have been so significant. Alcoholic drinks played a notably larger part in seventeenth-century diet than in the modern era, and the value of alcohol production as a percentage of national economic output was also higher.[23] Written

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[20] Charles Webster, *The Great Instauration: Science, Medicine, and Reform 1626-1660* (New York: Holmes & Meier Publishers, 1976); Thirsk, *Alternative Agriculture*. 479.
[21] In this commonplace book, Phelips transcribes excerpts from John Worlidge's *Vinetum Britannicum* and *Systema Horticulturae* as well as Evelyn's *Sylva* and *Pomona*. William Phelips, Commonplace Book, 1687, SRO, DD/PH/248.
[22] Thirsk, *Alternative Agriculture*, 72-139.
[23] Adam Smyth points to Stuart Peachey's study of Berkshire account books between 1611 and 1618, which suggest an "average between six and eight pints of beer were consumed per person, each day." Adam Smyth, ed., *A Pleasing Sinne: Drink and Conviviality in Seventeenth-Century England* (Rochester, NY: D.S. Brewer, 2004), xviii; In the American context, Sarah Hand Meacham finds: "By 1770, the average adult white man drank the equivalent of seven shots of rum per day, and an average white woman drank almost two pints of hard cider per day. Children consumed alcoholic drinks daily, as slaves likely did as well. White servants were guaranteed alcoholic beverages

support for cider projects by public figures, innovative landlords, scientifically minded experimenters, and a diverse array of consumers took many forms, and the tangible effects of cider proselytism proved much more than hopeful rhetoric; the subsequent production boom in this period was a clear sign of progress to cider champions, who often hoped to utilize the commodity to accommodate a varied set of political, religious, economic, and social goals.

III. Cider as a Topic for History

Cultivated apple trees are not propagated through seeds, or "kernels," but rather through grafting, thus avoiding genetically distinct fruits that exhibit different, undesirable characteristics. In the cider-production process kernels are typically worse than useless, as they not only play a minimal role in begetting new apple trees, but can also break apart in the grinding stage, imparting a bitter taste to the liquor. As with cider, so too with cider history perhaps. The individual kernels of the debates detailed in this dissertation have minimal value in their own right. Worse yet, the sometimes-tedious details of disagreements over soil types, barreling duration, regional pre-eminence, *et cetera* can at times have a harshening effect that makes this narrative less palatable. But it is hoped that the material around these kernels will offer proper pulp for good history. Among the topics bound up in the history of English cider in the seventeenth and eighteenth centuries are the dramatic rise in production of new foodstuffs and subsequent opening of new markets; the adoption of innovative techniques and cultivars unheard

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by their employment contracts. Apprentices took daily breaks for drinks with their masters. Men running for office wooed voters with alcoholic concoctions." Sarah Hand Meacham, *Every Home a Distillery: Alcohol, Gender, and Technology in the Colonial Chesapeake* (Baltimore: Johns Hopkins University Press, 2009), 1-2; For estimates of the value of England's alcoholic drink trade, see John Chartres comparisons to Phyllis Dean and W. A. Cole's figures: John Chartres, "No English Calvados? English Distillers and the Cider Industry in the Seventeenth and Eighteenth Centuries," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 323-4; Phyllis Deane and W. A. Cole, *British Economic Growth, 1688-1959*, 2nd ed. (London: Cambridge University Press, 1967), 42-8.

of a generation previously; the inexorable economic changes English agriculture underwent after 1650 as grain prices entered into a hundred-year trough; divides in matters of politics, science, and religion and how these manifested in agricultural writing; and the nature of the connections existing between rural areas, metropolitan centers, and far-flung colonial holdings.

This project takes a general methodological cue from other commodity studies that situate larger historical questions in relation to a particular consumption good. Like cotton, tobacco, or sugar, cider played an important role in its own right as a product that dramatically altered both the region where it was produced and the areas consuming it. Sidney Mintz's 1985 work, *Sweetness and Power*, explored the interlocking nature of North American and European metropoles alongside the Caribbean producers of tropical foodstuffs. Initially frustrated by the dilemma of how to overcome the "tendency for one of the other—the 'hub' or the 'outer rim'—to slip out of focus, Mintz concentrated on sugar as the linchpin commodity that tied these disparate regions together."[24] Offering a narrative of consumers, producers, and the power derived from ascribing meaning and function to sugar, Mintz constructed a fuller, complex history.

As Mintz utilized sugar to weave together the interconnected stories of his "hub and outer rim," the history of cider helps demonstrate the correspondent relations between topics, spaces, and peoples that can otherwise be difficult to view together. These interconnected areas of inquiry include the exchange between English rural and urban spaces; the overlap between religiously Independent "instauration" projects and ostensibly de-politicized Royal Society efforts; the interplay between impersonal economic patterns and the intimate decisions of farmers on how and what to grow the next year; the evolution of consumption patterns among

[24] Sidney Mintz, *Sweetness and Power: the place of sugar in modern history* (New York: Viking, 1985), xvii.

peoples in different geographic locations and economic strata; and the relationship between such disparate topics as pamphlet culture, religious environmentalism, advances in technology, poor relief, popular resistance to taxation, regional identity, state politics, medicine, and wider continental and colonial connections to England.

In the context of early modern England, cider served a role not unlike Mintz's Caribbean sugar. While both products had a prior history that extended many centuries before their respective takeoffs, unlike sugar, cider's revolutionary impact lost momentum and began to fade away little more than a century and a half after it began. Curiously, this succession of rise and decline in the cider industry has been repeated multiple times in England. The revitalization and reintroduction of a scorned regional beverage in the middle of the seventeenth century ended with a period of marginalization that began around the end of the eighteenth century. This cycle is reminiscent of the earlier decline the industry experienced in the sixteenth century, when cider lost its formerly robust reputation built on monastic and large-estate expertise, and instead became a drink reserved for poor farm laborers. In the second half of the twentieth century, the most-recent down cycle started to reverse itself once more in yet another repetition of the multiple cycles of death and rebirth. Granted, this was always a relative type of death, one that allowed for ongoing local production in "cider country" areas of a product that satisfied local consumption needs by those who often could not afford or did not wish to seek out other types of alcohol. While the recent modern renewal of cider has added some impetus to reconsider the crop's importance, the long period of decline dating from the late-eighteenth century no doubt accounts for much of the relative dearth of historical scholarship on the topic.

IV. Cider in the Existing History Literature

The importance of cider from the 1640s through the late eighteenth century in England has been met with a striking silence in the historical literature. A number of scholars touch lightly upon cider and have been instructive, particularly Charles Webster's *The Great Instauration* and Joan Thirsk's *Alternative Agriculture*.[25] Webster's account helps place the initial surge of cider improvement projects in its larger religiopolitical context, while Thirsk provides a framework for the exchange between economic agricultural conditions and the intellectual environment that organized and directed such efforts. Webster had no qualms in ranking Hartlib's agricultural projects by relative consequence. He claimed that husbandry was the single greatest thrust of the "puritan project," and that "forestry and fruit-tree growing… assumed outstanding importance" among the writings on husbandry. Webster based this on both the volume of writing on the topic and their specific appeals for legislation.[26] And yet, as is typical for many of the histories that touch upon cider, Webster could only devote six pages in his hefty tome to fruit trees. References to cider and orcharding more commonly abound in general histories such as the edited series, *The Agrarian History of England and Wales*, but do not provide sustained systematic treatment of cider.

While no professional historians have written a monograph history of the cider industry, there are three important chapters of edited collections and a dissertation that stand out. Vittoria Di Palma's very brief "Drinking cider in paradise: science, improvement, and the politics of fruit trees" provides the most complete overview of the spiritual and political impulses animating cider promoters.[27] In "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century,"

[25] Webster, *The Great Instauration*; Thirsk, *Alternative Agriculture*.
[26] Webster, *The Great Instauration*, 473, 477-480.
[27] Di Palma, "Drinking Cider."

Stuart Davies details a modest number of sixteenth and early-seventeenth-century discussions of cider that help to demonstrate the metamorphosis in public opinion towards the drink that took root by the Civil War era, and includes an attempt to quantify the increase in production using probate inventories in north-west Worcestershire.[28] John Chartres' "No English Calvados? English Distillers and the Cider Industry in the Seventeenth and Eighteenth Centuries" deserves mention for further attempting to quantify certain aspects of the cider industry, as well as offering arguments on why the distilled byproduct of cider, apple brandy (or in France, "calvados"), never found footing in England.[29] Finally, Patrick Woodland's dissertation on the political crisis created when Lord Bute's administration raised the excise tax rate on cider in the aftermath of the Seven Years' War contains an introduction on the earlier history of English cider that has been particularly useful.[30]

In contrast to the thin offerings of works specifically about cider in the academy, amateur cider enthusiasts and local antiquarian devotees have written an astounding amount of material. Although often of questionable value as sources themselves—very few use citations or explicitly detail where their information comes from—these works have been helpful in suggesting alternative areas of research that have been ignored by professional historians. Author, journalist, and cider bar proprietor Ted Bruning's *Golden Fire: The Story of Cider* is a particularly exemplary model of these largely unsourced, yet highly useful popular accounts. This book represents, by his own account, "the first attempt there has been at a narrative history of cider." Though he notes much work remains to be done, his scholarship and this dissertation represent some effort towards building a foundation for continued study of the early modern English cider

[28] Stuart Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," in *'Liquid Nourishment': potable foods and stimulating drinks*, ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993).
[29] Chartres, "No English Calvados?
[30] Patrick T. M. Woodland, "The Cider Excise, 1763-66" (D.Phil. diss., St. Peter's College, Oxford, 1982).

industry.[31] Despite my terming these works "amateur" histories, in many cases they are well researched and represent a formidable trove of scholarship from which to launch this further investigation.[32]

Finally, a book by Roger French is something of a hybrid between the two genres.[33] This work, written as a side project by a historian of medicine, is a mix of scholarly inquest and personal passion. While the majority of the book is focused on issues such as how to make "cyder" in the traditional manner, the book contains a good explication of the medicinal history of the beverage as a cure for scurvy, as well as an in-depth inquiry into the likely alcohol content percentages of different forms of cider (between 6-14% for "real cyder" and roughly 2-4% for various diluted forms).[34]

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[31] Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordshire: Authors OnLine Ltd, 2012), 9.

[32] A partial list of additional amateur histories includes Henry Graves Bull, "The Early History of the Apple and Pear," in *The Herefordshire Pomona, Containing Figures and Descriptions of the Most Esteemed Kinds of Apples and Pears,* vol. 1, eds. Hogg, Robert, and Bull, Henry Graves (London: Hereford, Jakeman and Carver, 1876); Mrs. S. Burgess, "Cider Songs and Customs," in *Bygone Somerset*, ed. Cuming Walters (London: W. Andrews and Co., 1897); Charles Cooke, *A book about cider and perry* (London, H. Cox, 1898); James Crowden, *Ciderland*, (Edinburgh: Birlinn Ltd., 2008); Mark Foot, *Cider's Story: Rough and Smooth* (Nailsea: Design Principles, 1999); G.E. Fussell, "Batty Langley, Ciderist and Architect, 1696-1751," *Journal of the Land Agents' Society* 47 (1948): 315-17; Ian Harman, "When Cider was Made in Sussex," *Sussex County Magazine* 14 (1940): 3-4; J. Rendel Harris, "Origin and Meaning of Apple Cults," *Bulletin of the John Rylands Library* 5 (1918-20): 29-74; Bill Laws, "The Story of Cider Through the Ages," *Herefordshire County Life* 1 (Jan. 1979): 44-8; Philippa Legg, *So Merry Let Us Be: The Living Tradition of Somerset Cider* (Bridgwater: Somerset County Council Library Service, 1986); Henry Perree, "Black Butter and Cider," *Jersey Society in London Bulletin* 2 (March 1984): 6-12; T.F. Priaulx, "Cider-Making, An Old-Time Guernsey Industry," *Report and Trans. of la Societe Guernesiaise* 15 (1953): 286-92; Michael B. Quinion, *A Drink for its Time: Farm Cider Making in the Western Counties* (Hereford: Hereford Cider Museum Trust, 1979); J.G. Speer, "Pommage," *Annual Bulletin of the Societe Jersiaise* 20 (1970): 164-73; Tom Stevenson, *Christie's world encyclopedia of champagne & sparkling wine* (London: Bloomsbury Publishing, 1999); Henry Stopes, *Cider: the History, Method of Manufacture, and Properties of this National Beverage* (London, 1888); D.M. Duggan Thacker, "Country Cider," *Folk Life* 6 (1968): 104-12; Ben Watson, *Cider, hard and sweet - history, traditions, and making your own* (New York, NY: Countryman Press, 1999); John Williams-Davies, *Cider Making in Wales* (Cardiff: National Museum of Wales, 1984).

[33] Roger French, *The History and Virtues of Cyder* (London: Robert Hale Limited, 1982).

[34] French here is using the term "cyder" in a modern sense to connote a particular method of production and perceived fidelity to tradition, though this distinction was uncommon in the early modern period. A wide range of spellings were typical, and it is not uncommon to see multiple forms in a single document, though cider, cyder, syder, and sider were the most prevalent. Throughout the early modern period, but especially before, cider would sometimes be referred to simply as wine, or more helpfully "apple wine." In the medieval era a heavy French and Latin influence may be seen, where cider was referred to as pomadr, pomarum, pomede, pomada, pomee, cidre, cicer, sidre, sicera, and, sizeram, to name some of the more frequent variants. Unfortunately, many of these also

These works represent a significant amount of previously compiled cider history from which to launch the present study. Ultimately, the scale of England's cider history is too large for a single dissertation, so particular facets have been focused upon so as to be able to provide analytic depth. The first chapter provides an introduction into the divergent, contested, and rapidly changing production methods deployed to make cider in the seventeenth century. The eight cider authors whose works were compiled by Beale and Evelyn into *Pomona* are the most commonly cited sources for this section, but other major writers such as Austen and Worlidge are utilized as well. These production disputes carried political overtones and implications, which are therefore reassessed in Chapter Three. The remainder of Chapter One gives a brief history of cider in England prior to the main period in question, with treatment of the drink's place in medieval society and its eventual decline that occurred in the sixteenth century.

Chapter Two spatially organizes the developments in England's cider production history prior to the seventeenth century broadly in terms of contrasting the east of England and the west-country areas that later became associated with cider. The chapter proceeds to offer a quantitative account of the article's expanding presence after the late sixteenth, though because any quantitative study of cider is beset by record problems, significant contemporary qualitative evidence is offered a well. Thirsk's "Alternative Agriculture" framework is discussed at length here, and the problems a history of cider raises for her model are explored. Specifically, this chapter argues that cider emerges at considerable scale too early for the price of grain and meat to have played a determinant early role. The chapter concludes with an attempt to offer approximations of the total volume of English cider production, primarily through a mix of excise figures and estimations based on supporting accounts.

referred to more general alcoholic or fruit drinks, often making precise identification impossible without contextual clues.

Chapter Three turns to the importance of cider as an intellectual project. The first section covers the broader context of the elevated importance of alcohol during this period, and the relevance of this history to broader trends in improvement writing is given. A brief overview of the conditions facing rural England is then offered to account for specific categories of problems cider writers attempted to address. Given Chapter Two's refutation of Thirsk's over-reliance on economic metrics, this chapter offers reasons to interpret cider's rise as an intellectual project. This project was riven with internal debates that expose broader divisions held by cider writers over the reach and purpose of improvement.

Finally, Chapter Four contextualizes the quantitative findings of Chapter Two alongside the political impulses identified in Chapter Three to show how the history of cider taxation in England gave rise to an expanded national consciousness surrounding the beverage. Cider in England became a good that transcended the narrow political and economic concerns that typified the commodity in the early period as a regional product. This dynamic is then shown to have been on forceful display in the final period covered in this study: the crisis occasioned by the Cider Excise Bill of 1763.

CHAPTER ONE: "No other Drinke but that which is made of Apples": The Makings of a Cider Boom

The degree to which the seventeenth-century surge in English cider production and intellectual interest in the product was an actual departure from what preceded it has implications for how we should understand the relevance of cider history to a broader story of rural and urban agricultural interchange. Contemporaries certainly understood cider as being part of a set of "new" improver goods. And though some had a sense that cider had an older history in England, they either understood it as a formerly niche product that was widely unavailable or assumed that what existed before was of such low quality that they were essentially experiencing a new good.

One of the claims of this dissertation is that the cyclical pattern of cider's popularity takes for granted a substantial amount of locally consumed production occurring even in the downturn periods. The bulk of such cider production was of common quality at best, and much like in later periods this form would not have been well-represented in written records. However, surviving medieval records suggest a sizeable portion of cider production was of excellent quality and serviced elite consumers. It was this high-quality version that was apparently impacted most noticeably in the subsequent sixteenth-century decline in English cider condition, market reach, and absolute production. Elite cider served as a type of "canary in a coalmine" for a broader set of agricultural concerns that impacted highly specialized production, fruit tree cultivation ranking in the top tier of rural goods in terms of technology, knowledge, capital, and continuity necessary for success. To assess the degree to which cider re-emerged and was substantively different in the seventeenth century from what came before, it is necessary to establish a baseline of cider's role in England in the years before its heyday.

I. Production Methods

Before launching into the prior history of English cider, it is worth detailing what precisely cider production entailed, though it appears deceptively simple at first glance. As Paul Neil wrote, "*Cider* is really but the *Wine* of *Apples*."[1] However, the process differed significantly from grape wine production and presented unique challenges. Some cider was made to such a high quality that it directly competed with wine for elite consumption in the seventeenth and eighteenth centuries, but cider could also be truly terrible depending on the production methods employed. John Worlidge described his experience with one particularly bad batch of farmhouse cider, thusly:

> Its name like that of charity covers a multitude of sins... I drank cider—'family cider' is the correct appellation—the memory of which, or of its effects will never leave me as long as I may live. This dreadful draught, which tastes like steel filing mixed with vinegar and mud, is, it appears, compounded of more or less rotten apples heaped up in orchards for pigs and fowls to feed on, whereof the juice expressed into dirty casks, may be at times diluted with water from a neighboring horse pond.[2]

William Dowdeswell, in his capacity as Chancellor of the Exchequer at a time when repeal of the Cider Excise was being contemplated, argued a tax on all forms of cider was unfair because it would also target "some of the worst liquor in the world."[3] Even when produced by experts, cider could be a fickle beverage, and much cider was made by people who did not bother to practice the methods propounded in the voluminous cider manual literature of the time. Apprehension over these perceived faulty practices was keenly felt by those who invested much

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[1] Paul Neil, "Discourse on Cider," in *Pomona, or, An appendix concerning fruit-trees, in relation to cider: the making, and several ways of ordering it*, ed. John Evelyn (London: Printed by John Martyn and James Allestry, printers to the Royal Society, 1664), 40.

[2] John Worlidge, *Vinetum Britannicum* (London: Printed by J. C. for Tho. Dring, 1676), as cited in Stuart Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," in *Liquid Nourishment: Potable Foods and Stimulating Drinks,* ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993), 83-84.

[3] William Dowdeswell, "Considerations on the laws laying duties on cider and perry" (1766), BL Add MS 35879 ff. 347.

of their financial and intellectual resources into cider promotion. Cider writer John Beale was typical in this regard, lamenting "the different and erroneous Methods that are us'd in making of it, (which like Medicines for Agues, are become innumerable)… have very much impaired its Reputation and rendered this Liquor not so universally acceptable as it might be..."[4] Given the situation, an unsurprising amount of space in manuals was dedicated to correcting cider that had gone bad, often involving adding small amounts of goods one would not typically expect to find in alcoholic beverages such as mustard seed, eggs, slit figs, and so forth to hogsheads of "ropey" cider.[5]

However, the art of cider production arguably was never before, and has never since been, so obsessed over by such an eminent cadre of writers and producers. Their debates over production methods elevated cider from a merely plausible economic investment into an article that became intertwined with English identity, political and religious aspirations, and a vehicle for the latest technological and scientific advancements. To understand these aspects of cider, some attention to its methods of production is necessary.

After growing the apples and picking them, the major steps in cider making are resting, grinding, pressing, fermentation, and bottling. The main element these practices shared in common is that Englishmen stridently disagreed with each other over every one of them. Regional variation in cider-making practice was already notable enough in the early modern period to be remarked upon by contemporaries.[6] The steps listed above presume that one has selected the correct cider apple, which was itself a matter of debate. A dizzying number of apple varietals already existed by the 1660s, varying vastly by region or even by parish. By far the

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[4] John Worlidge, *The most easie method for making the best cyder* (London: Printed for George Grafton, 1687), A2.
[5] John Newburgh, "Observations concerning the making, and preserving of cider," in *Pomona*, ed. Evelyn, 55.
[6] Royal Dublin Society, "Observation No. XXVI. Tuesday, June the 28th, 1737," in *The Dublin Society's Weekly Observations* (Dublin: 1737-1738), 174.

most lauded varietal of the era was the famous "Redstrake" (or Red-streak), which was first isolated in Herefordshire by Viscount John Scudamore in the 1630s from a "wilding apple," which is to say a domesticated apple species that had subsequently be allowed to grow wild from seed and thereby developed new genetic characteristics.[7] Orchardists were of course aware that apple trees grown from kernels would be distinct from their parent trees, or "most usually prove wilde," and that its new characteristics would typically be an unpleasant increase in the "austere and sharp" taste of the fruit.[8] Would-be cider makers were cautioned to expect "obstructions and disappointments" from kernel-grown trees. Therefore, most careful cider producers avoided using these apples except in small numbers added as a device to round out flavor and tannin structure, or to add reputed preservative properties to a larger batch, much "as salt preserves flesh."[9]

Though most largescale producers of quality product such as Richard Haines took "for a certain rule" that apple kernels "rarely prove good," others like Lord Scudamore took up the challenge of identifying those wildings that showed potential for preservation as new varietals.[10] These experiments would occasionally pay off, as "sometimes Apples have proved well from the Kernel, and have proved much larger Trees, and have born great burthens," though this process could not be controlled and happened "rather by accident," which could make such efforts "not worth one's labour."[11] As with most cider-making practices, some growers disagreed with the

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[7] John Beale, "General Advertisements Concerning Cider," in *Pomona*, ed. Evelyn, 30-1.
[8] John Worlidge, *Systema Agriculturae; The Mystery of Husbandry Discovered: Treating of the several New and most Advantagious Ways Of Tilling, Planting, Sowing, Manuring, Ordering, Improving Of all sorts of Gardens, Orchards, Meadows, Pastures, Corn-lands, Woods & Coppices* (London: Printed for Tho. Dring, 1669), 108.
[9] Beale, "General Advertisements Concerning Cider," 32.
[10] Haines, Richard, *Aphorisms upon the new way of improving cyder, or making cyder-royal lately discovered for the good of those kingdoms and nations that are beholden to others, and pay dear for wine…: to which are added, certain expedients concerning raising and planting of apple-trees, gooseberry-trees, &c. with respect to cheapness, expedition, certain growing, and fruitfulness, beyond what hath hitherto been yet made known* (London: Printed by George Larkin for the author, 1684), 15.
[11] Worlidge, *Systema Agriculturae*, 108.

common opinion against kernel-borne apples. Charles Cotton, writer of *The Planters Manual*, advised "continual planting" to "continually furnish and supply your Nurseries." To accomplish this, he recommended planting the remains of the kernel-filled apple pulp, or "the pulse of Cider," that was left over from previous cider pressings.[12] Robert Sharrock made a similar point in his *History of Propagation*, but these were minority opinions among cider writers, who typically recommended well-known varietals propagated through grafting.[13]

John Evelyn's appendix to his 1664 forestry book, *Sylva*, contained an edited collection of cider writing that demonstrated the regional variation of cider fruit varietals. Entitled *Pomona*, this appendix contained at least eight authors' writing of roughly 70 pages of internally inconsistent, yet generally advanced cider production practices.[14] In addition to the Redstrake, for Herefordshire Beale mentioned the Bosbury Bare-Land Pear, Bromebury-Crab, and "that other much celebrated Wilding call'd the Oaken-Pin."[15] Newburgh listed the popular cider varietals in Dorsetshire as "Pure-Lings, Deans-Apple, and the Peleasntine," and observed that ciderists in Jersey thought that "the more of red any Apple hath in its rind, the more proper it is for this use."[16] Another author noted the varietals most popular in Gloucestershire as being the "White and Red Must-apple, the Sweet and Sour Pepin, and the Harvey-apple."[17] Beale hinted at

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[12] Charles Cotton, *The planters manual, being instructions for the raising, planting, and cultivating all sorts of fruit-trees, whether stonefruits or pepin-fruits, with their natures and seasons very useful for such as are curious in planting and grafting* (London: Printed for Henry Brome, 1675), 112-113.
[13] Robert Sharrock, *The History of the Propagation and Improvement of Vegetables* (Oxford: Printed by A. Lichfield, 1660), 33.
[14] So contrary were some of methods prescribed by these various writers that Evelyn felt compelled to include the following animadversion: "If some of the following Discourses seem less constant, or (upon occasion) repugnant to one another, they are to be consider'd as relating only to the several gusts, and guizes of Persons and Countries, and not to be looked upon as recommended Secrets, much less impos'd, farther than upon Tryal they may prove grateful to the Publick, and the different inclinations of those who affect these Drinks: nor in reason ought any to decry what is propos'd for the universal Benefit; since it costs them nothing but their civility to so many obliging Persons." Evelyn, *Pomona*, 27.
[15] John Beale, "Of Variety and Improvements," in *Pomona*, ed. Evelyn, 13-14.
[16] Newburgh, "Observations concerning the making, and preserving of cider," 56-7.
[17] Doctor Smith, "Concerning Cider," in *Pomona*, ed. Evelyn, 58.

on-going debates between supporters of particular varietals: "some commend the Fox-Whelp; and the Gennet-Moyle was once preferr'd to the very Red-strake… but upon more mature consideration, the very Criticks themselves now Recant, as being too effeminate and soft for a judicious Palate."[18] Sylas Taylor mentioned the "Summer-Violet or Fillet, and the Winter-Fillet" as additional considerations to the Redstrake, but again, nearly all writers were unanimous that "the Redstrake bears the bell."[19]

Over time, specialized cider made from favored fruits commanded higher prices, giving producers incentive to pay close attention to their varietals.[20] The mixing of varietals together, even for those who prized the Redstrake above all others, was also common, though again there were those who demurred. Anthony Lawrence, for one, noted that his attempts to mix Redstrakes and Gennet-Moyles were not as "generally preferred" as "either apart."[21] Cider apples were selected not only for taste, but also for the higher proportion of fruit in a given tree, their ability to withstand frosts, the ease with which they were liable to secrete juice during pressing, the pigment they would impart to the finished product, the quickness with which trees would mature, and various other reasons.

A spirited debate with class and political overtones erupted over whether table fruit, meaning fruit that one could eat, had a place in cider. While many cider writers consciously advocated for cider as an estate crop that would replace wine drinking at wealthy tables, or at least urged their middling readers to supply the trade to such tables, Paul Neil argued that table

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[18] Beale, "Of Variety and Improvements," 18-9.
[19] Sylas Taylor, "Of Cider," in *Pomona*, ed. Evelyn, 59.
[20] Roger French, *The History and Virtues of Cyder* (New York: St. Martin's, 1982), 27-28.
[21] Anthony Lawrence, "In which some plain Nursery-Books are recommended; with Encouragements and Expedients proper to promote the planting of Nurseries and Orchards in the Champain-Countries near Cambridge," in *Nurseries, orchards, profitable gardens, and vineyards encouraged the present obstructions removed… in several letters out of the country directed to Henry Oldenburg* (London: Printed for Henry Brome, 1677), 16.

fruit made the "more pleasant liquor." He accused those who used cider fruit rather than table fruit of pretending to be country lords who only wanted to mimic high-strength wine at the expense of palatability: "Nor shall I at all concern my self, whether this sort of Cider I pretend to is so vinous a liquor; and consequently will yield so much spirit upon Distillation, or so soon make the Country-man think himself a Lord, as the Hard-apple-cider will do." This debate would have broader implications for a host of political projects that cider boosters had in mind; these included mercantilist impulses to offset Continental wine imports, and the trade-off between alternatively using orchards as food-reservoirs-in-waiting with fruit that could be turned over to poor relief in times of famine, or instead protecting the financial investment of farmers by filling these orchards with fruit "with less danger of loss" from passing thieves because cider apples were "so harsh that a Hog will hardly eat them."[22]

Apart from certain ciders made from wildings and crabs, generally once a varietal was selected the tree would need to be grafted. Though many manuals of the period describe various approaches to this process, grafting was time-consuming and could yield disappointing results given a high failure rate, leading to a boom in specialized nurseries including Ralph Austen's well-known holdings around Oxford. Usually apple grafts would be joined to wild crab root stocks, even by those who preferred table fruit cider, though sometimes cider trees were grafted to rootstock of other cider trees with resilient characteristics.[23] Crab stocks were known to be heartier and more apt to grow well in marginal soils, a key feature given that apple trees were often planted in the liminal areas on farms where traditional cereal crops could not thrive.

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[22] Neil, "Discourse of Cider," 40; Worlidge, *Systema Agriculturae*, 101.

[23] Richard Reed, "Some communications, about an early swarm of bees, as also concerning cyder; descent of sap; the season of transplanting vegetables: sent to the publisher out of Herefordshire by that intelligent gentleman," *Philosophical Transactions of the Royal Society* 6, issue 70 (March, 1672), 2129.

Grafting could be done by either cutting small incisions into the root stock and binding the graft in place, cleaving both ends entirely, or having the two trees grow together (called "grafting by approach"). In a cider-making process full of contention over every step, grafting possibly inspired the most division. The finicky nature of grafts could lead to practices bordering on superstition, as when Beale related Barnaby Googe's advice to "gather your Cions in the wane of the Moon."[24] In this instance Beale recommended collect the cuttings "at least ten days before you graff them." However, they were often taken months beforehand and kept cool underground until spring, when they would be placed under the bark of young trees.[25] Alternatively, cuttings could be placed directly in holes that were dug into the ground up to a year in advance and sometimes filled with soil treated with burnt straw.[26] Ancient Roman authorities such as Columella, Cato, Varro, and Palladius were frequently cited in regards to grafting, though at times their teachings were of questionable value. For example, on the topic of grafting dissimilar fruits together, Beale recounted Varro "threatning no less than Thunderbolts and Blasts to those who should attempt these strange Marriages."[27] The precipitating disagreement that caused a rift between the two most eminent ciderists of the 1650s and 60s, Ralph Austen and John Beale, rose out of differing opinions over grafting.

Once a tree was grafted, it would begin giving produce after around three years and reach maturity at 10-12 years. Most trees would not decay for 60-80 years, making cider orchards a long-term investment.[28] Yields from year-to-year would not be consistent, however, as large variances in apple crops were common. While orchards tended to "hit" a bumper crop about once

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[24] John Beale, "Of Graffs and Insitions," in *Pomona*, ed. Evelyn, 13.
[25] Michael Quinion, *Cidermaking* (Oxford: Shire Publications, Ltd., 1982), 6.
[26] Thomas Barker, *The Country-mans Recreation, or the Art of Planting, Graffing, and Gardening, in three Bookes*. (London: Printed by T. Mabb and William Hunt for William Shears, 1651), ii-iii.
[27] Beale, "Of Variety and Improvements," 15.
[28] Beale, "General Advertisements Concerning Cider," 33.

every four years, fruit buds were also susceptible to early frosts that could decimate a year's production.[29] Wild swings in the price of cider in the medieval and early modern periods were in large part due to these fluctuations in the apple crop. Historian of medieval agricultural prices James Rogers evinced obvious frustration when he claimed his collection of apple price data was so "very various" that the it was "suggestive of little."[30] The parish of Trull in Somerset provides an illuminating example. Records compiled by the appropriately named church warden, Raff Appeln, show the presence of produce grown on the church grounds, which was meant to help maintain the poor. Beginning in 1530 this included "appellys yn the chyrch yerde," which were collected and sold in 16 years where their worth was assessed at 12d, 16d, 32d, 103d, 9d, 17d, 81d, 14d, 80d, 8d, 24d, 18d, 8d, 6d, 16d, and 38d. These apples were collected at regular intervals and often sold to a single individual, likely a wholesaler, and the highly variable prices they sold at illustrate how volatile orcharding could be.[31]

Ciderists tended to plant dwarf, or "bush trees," rather than full-sized trees to decrease the distance between them and increase the yield per acre.[32] This reduced the propensity of larger trees to overshadow young saplings, limiting their ability to grow ripe fruit.[33] As with nearly all else, some writers disagreed on this point; Charles Cotton, for instance, believed the fruits of larger trees were "of a better taste than those which are gathered from Espalliers and Dwarf-

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[29] John Chartres, "No English Calvados? English Distillers and the Cider Industry in the Seventeenth and Eighteenth Centuries," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 333.

[30] Rogers notes cider prices ranging from a halfpenny a gallon to three farthings and a penny per gallon in his study of the thirteenth and fourteenth century Oxford and Cambridge estates. James E. Thorold Rogers, *A history of agriculture and prices in England, from the year after the Oxford parliament (1259) to the commencement of the continental war (1793); comp. entirely from original and contemporaneous records*, 7 vols. (Oxford: Clarendon Press, 1866-1902), v. 1, 419.

[31] R.W. Dunning and M.B. McDermott, eds. "Trull Parish, Somerset," in *Church Accounts 1457-1559*, Somerset Record Society v. 95, (4word Ltd.: Bristol, 2013), 243.

[32] Pete Brown, *The Apple Orchard: The Story of Our Most English Fruit* (Penguin Books, 2016), 38.

[33] Barker, *The Country-mans Recreation*, 2.

trees."[34] An acre of land could hold 40 newly planted trees, and up to 50-60 in mature orchards. Depending on the season, each tree could yield 10 bushels of apples, sometimes rising to 20 bushels in exceptional years.[35] Worlidge gave 20-22 bushels of apples as an approximate range of what was necessary to make a hogshead of normal cider, but for a higher-quality product he recommended "sweating" the apples to remove excess moisture, which would then necessitate 25 bushels per hogshead.[36] A prominent cider producer and merchant of cider to London, Richard Haines, wrote that it was "well-known that twenty Bushels of Apples will make an Hogs-Head of Cyder," implying his product was generally of middling alcohol strength.[37] Therefore, if low-end estimates are taken for the number of trees per acre and bushels of apples per tree, an acre of land might produce 20 hogsheads (1260 gallons) of typical cider, or 16 of premium, high-strength product. This would rise to 60 hogsheads of typical and 48 of premium cider per acre if the more generous projections came to pass. At a unit price of roughly five shillings per hogshead, even allowing for large fluctuations, a relatively modest orchard could be quite profitable.

In addition to the early frosts and potential for theft already mentioned above, a whole host of natural pests had to be accounted for and dissuaded. Reports detail flocks of birds spoiling apple crops by "cut[ting] an Apple in two, at one snap, eating onely the kernels."[38] Additional pests included caterpillars, locusts, cantharides, ants, moles, field mice, worms, and wasps that would "denounce open war against your trees." Advice on how to deal with these

[34] Cotton, *Planters Manual*, 3-4.
[35] John Smith, *England's Improvement Reviv'd* (London: Printed by Tho. Newcomb for Benjamin Southwood, 1673), 204.
[36] Worlidge, *Systema Agriculturae*, 127.
[37] Haines, *Aphorisms upon the new way of improving cyder*, 6.
[38] Richard Carew, *The Survey of Cornwall* (London: Printed by S. S[tafford] for Iohn Iaggard, 1602), 25.

scourges ranged in practicality, from simply shaking trees and crushing insects that fell off, to strewing sawdust around the trunk in an effort to suppress ants.[39]

The picking stage of production was labor-intensive because rotted or bruised apples could spoil the entire batch of cider. In typical fashion, some manuals actually recommended a certain number of rotten apples be added to the mixture on purpose, as in the case of John Newburgh and Anthony Lawrence: "If some be rotten, the liquor is not the worse (as Mr. Newburgh rightly observes,) it is the better; if the rottenness be not fetid, musty, hoary, or black rottenness."[40] John Worlidge recommended leaving apples on the tree until as late as possible and gave his reader signs of how the kernels and apple flesh should look, and how the fruit should smell before gathering them from the tree or the ground. Though he acknowledged this was a matter with a wide set of opinions, he emphasized that the fruit should be collected before the danger of frost.[41] The majority of cider makers endeavored to avoid rotting fruit, and so to ensure apples were not bruised picking had to be either done by hand or with the aid of wool blankets and straw placed below trees, which were then shaken. For those who took pains to avoid "windfall," underripe, rotting, or bruised apples in their primary cider batches, these compromised fruits were still often retained to be made into lower-grade cider in later batches.[42] Because of the potential for bruising during picking and the subsequent transportation of the apples to milling areas, it was hard for large cideries to emerge in a way that was possible for breweries, and later distilleries. Production methods thus necessitated small-scale operations, where only nearby farms would share access to a common cider mill.

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[39] Cotton, *Planters Manual*, 85-89.
[40] Lawrence, *Nurseries, orchards, profitable gardens*, 15-16.
[41] Worlidge, *The most easie method for making the best cyder*, A2-A4.
[42] Royal Dublin Society, "Observation No. XXIV. Tuesday, June the 14th, 1737," in *The Dublin Society's Weekly Observations*, 161.

Depending on the author, once the picking was concluded the apples would be "rested" in order to dry some of the moisture out so as not to dilute the cider with too much "Aqueous Humidity."[43] Apples continue to "breathe" after picking, producing oxygen and other gasses that age the apple even when stored well.[44] This process concentrates sugars, increasing sweetness and allowing for a higher percentage of alcohol after fermentation. In *Pomona*, Newburgh claimed that apples needed to lie in wait for a month to six weeks, while Smith encouraged farmers to not waste any time at all between picking the apples and pressing them, so long as they were ripe.[45] Newburgh's recommendations were longer than most, and by his own reckoning the dehydration of the apples during this period would necessitate an extraordinary 30 bushels of apples to make a hogshead. Smith's reasoning for avoiding apple resting was that immediate pressing would yield much more liquid and lower the chance of rottenness spreading among the apples. Taylor and Collwall recommended intermediate periods of two weeks and eight to nine days respectively to allow for "mellowing."[46] Ralph Austen recommended against heaping apples outdoors, and instead suggested putting them in lofts near open windows.[47]

Grinding, pressing, and bottling all were subject to technical innovation during this time. John Worlidge's "Ingenio," a hand-operated mobile grinder that was made from wood and was cheap to build was a major advancement over large and sometimes-expensive mills. Before this development, disagreements existed between those who preferred stone or wooden mills. Again, the debates within *Pomona* are instructive. Collwall directly claimed that "the best Mills to grind

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[43] Worlidge, *Systema Agriculturae*, 127.
[44] Pete Brown, *The Apple Orchard: The Story of Our Most English Fruit*, 257.
[45] Newburgh, "Observations Concerning the Making and Preserving of Cider," 52; Smith, "Concerning Cider," 58.
[46] Taylor, "Of Cider," 60; Daniel Collwall, "An Account of Perry and Cider out of Gloucester-shire," in *Pomona*, ed. Evelyn, 63.
[47] Ralph Austen, *A Treatise of Fruit-Trees, Shewing the manner of Grafting, Setting, Pruning, and Ordering of them in all respects* (Oxford: Printed for Tho. Robinson, 1653), 71.

in, are those of Stone," Taylor was fine with "deep troughs of Wood *or* Stone," while Smith thought wood was best because "the Cider that is ground in a Stone-case is generally accused to taste unpleasantly of the Rinds, Stems, and Kernels of the Apples; which it will not if ground in a Case of Wood, which doth not bruise them so much."[48] Some of this variation was regional. Stone mills were typical in Herefordshire and Cornwall, with at least 2000 stone mills surviving to the present day in Herefordshire and 123 in Cornwall.[49] Stone mills could be a considerable financial investment, but alternative inexpensive options existed, such as beating apples to a pulp by hand in troughs with "pounders."[50] Water was sometimes mixed into the pulp at this milling stage, though again this varied by region and was controversial to some.[51] Recommendations for when to begin milling and pressing ranged from "about " (September 29) to "the middle of November."[52]

As with the other stages, there were divides over how best to press the apples after they had been sufficiently ground into small bits. Generally, the ground apples would be loaded on wooden pallets with alternating layers of clean straw, thus comprising a "cheese" of two to three feet in height.[53] The cheese would be loaded onto either a screw press or, more rarely, a beam press in which the juice would be squeezed out into a surrounding catchment basin, after which it

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[48] Collwall, "An Account of Perry and Cider," 63-4; Taylor, "Of Cider," 61; Smith, "Concerning Cider," 58.
[49] Michael B. Quinion, *A Drink for its Time: Farm Cider Making in the Western Counties* (Hereford: Hereford Cider Museum Trust, 1979), 9; Rosemary Robertson and Geoffrey Gilbert, *Some Aspects of the Domestic Archaeology of Cornwall* (Truro: Cornwall Committee for Rescue Archaeology, 1979), 21, 35-37.
[50] For references to this method, see for instance: Gervase Markham, *The English Husbandman, The first Part: Contayning the Knowledge of the true Nature of euery Soyle within this Kingdome….Together with the Art of Planting, Grafting, and Gardening after our latest and rarest fashion* (London: Printed by T[homas] S[nodham] for John Browne, 1613), 88; John Beale, "Advertisements on the Vinetum Britannicum mentioned in the last foregoing tract sent to the publisher by the Reverend Dr. J. Beal Rector of Yeovil in Somersetshire and one of his Majesties Chaplains," *Philosophical Transactions of the Royal Society* 11, issue 124 (December 1676), 847; Ralph Austen, *A Treatise of Fruit-Trees,* 70; Worlidge, *Systema Agriculturae*, 127.
[51] Quinion, *A Drink for its Time*, 7; Worlidge, *Systema Agriculturae*, 128.
[52] Collwall, "An Account of Perry and Cider," 63;
[53] Taylor, "Of Cider," 61; "To Make Cider," BL Sloane MS 3796 f. 10, c.1696.

would be strained and put into "very tight and clean" vessels. After this initial pressing was completed, the fruit would be removed and rehydrated by "pouring several *Payls* of *Water* to it."[54] This would allow for a later second pressing to create "ordinary Cider for the servants." This "small cider" of lower strength remained a common staple on English farms through the end of the nineteenth century, often given to laborers as part of their wages in a practice known as "cider truck." One writer estimated the pomace that would provide 75 gallons on a first pressing would provide no more than 63 on the second and would increasingly be beset by "fowlness" in addition to being watered down.[55] After the pomace had been used in this capacity for a second or even third pressing, it would typically have been dehydrated and used as cattle feed.[56]

Sanitarily preparing the vessels into which the pressed liquid would be drawn was vital. The apple pulping process and subsequent creation of the cheese was a terribly messy process, prompting one observer of traditional methods to declare, "The making of cider is a process which would set a fastidious person against drinking it."[57] Writers consistently emphasized the necessity to "to keep clean your vessels and the place where your fruit doth lye" or run the risk that "the Cyder shall be infected."[58] The most common method of sterilization to "season" a barrel ahead of time was with a rag dipped in "brimstone," meaning sulphur, and lit on fire.[59] Scouring the barrels ahead of time with boiling water, sometimes with an ounce of pepper or quick-lime thrown in per hogshead were additional options.[60] Once the juice was drawn into

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[54] Collwall, "An Account of Perry and Cider," 64.
[55] James Scadding, of Sidmouth: Proposal conc. cider-tax: circ. 1763, BL Add MS 38355 f 304.
[56] Ian S. Hornsey, *Alcohol and its Role in the Evolution of Human Society* (Cambridge: The Royal Society for Chemistry, 2012), 452.
[57] Mrs. S. Burgess, "Cider Songs and Customs," in *Bygone Somerset*, ed. Cuming Walters (London: W. Andrews and Co., 1897), 123.
[58] Barker, *The Country-mans Recreation*, 74.
[59] William Salmon, *The Family Dictionary, or Houshold Companion* (London: Printed for H. Rhodes, 1695), 156.
[60] Newburgh, "Observations Concerning the Making and Preserving of Cider," 54.

Figure 1.1. *Autumn in New England, Cider Making*; George Henry Durrie 1863, Oil on canvas
Despite being from a later era in an American context, Durrie's painting captures several components of the cider-making process as it would have existed in seventeenth-century England. Multiple mounds of picked apples are seen "sweating" in heaps while a figure in the purpose-built cider house, or "pound house," operates a screw press. A bundle of straw is nearby to aid in making the "cheese." The scene is rightly shown as a social activity with a mother and child in addition to at least five men around the press, while two more men are in the field carting in additional apples. At least twelve empty barrels of various sizes are shown. The scene depicts mixed husbandry with corn in the field and multiple draft animals.
Reprinted with permission for educational purposes by the Carmen Thyssen-Bornemisza Collection on loan at the Museo Nacional Thyssen-Bornemisza.

large barrels for fermentation, several avenues presented themselves to ciderists. In addition to the option of adding water at this stage, additional other items could be combined to the juice. Some recommended mixing either cherry juice or the pulpy leavings from the cheese back into the liquid to impart better red coloring reminiscent of claret wine.[61] Juniper berries (good for coughs and the elderly, apparently), wheat, mustard, ginger, rosemary (helpful for reducing

[61] Austen, *A Treatise of Fruit-Trees*, 55.

"windy" flatulence), flowers, cloves, mace, cinnamon, and various other herbs and spices were either duly recommended to enliven the product and improve its fragrance, or bitterly opposed as bastardizing impurities.[62]

Today, the fermentation stage is tightly controlled in terms of temperature (which modulates fermentation speed), sanitation, and the type of yeasts introduced. Fermentation was not properly understood in the seventeenth century. This confusion is reflected in the odd set of practices that sprung up around it. One author recommended that producers should not disturb cider with loud noises, for example.[63] Worlidge claimed that "the want of the right understanding [of fermentation], is one of the main causes of so much bad Cider throughout England."[64] It was common to add items such as flour and honey into the barrel "to make it work kindly," as such items would have helped kickstart fermentation.[65] The presence of wild yeasts in these settings would have been a given but also would have changed depending on the county, with different end results ensuing.[66] A hole small enough to allow gasses to escape during fermentation was left open at the top of the hogshead, but it could not be so large that it would allow too much of the alcohol to evaporate. Once begun, stopping fermentation before all residual sugars were transformed into alcohol would have been difficult, thus creating the extra dry cider typical of farm settings.[67] Though seemingly uncommon, Paul Neil provided a method he initially observed from wine making that kept residual sugars present, thus retaining sweetness without resorting to adding artificial sweeteners. Analogous to the method that would later be called "keeving," Neil

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[62] Barker, *The Country-mans Recreation*, 74; Beale, "General Advertisements Concerning Cider," 32.
[63] Benjamin Billingsley, *Some Improvement of Cider and Strong Perry, and Some Other Vinous Liquors, for Domestick Improvement, and for Exportation* (London: Printed for B. Billi[ngsley], 1678).
[64] Worlidge, *Systema Agriculturae*, 128.
[65] Salmon, *Family Dictionary*, 156.
[66] Hornsey, *Alcohol and its Role in the Evolution of Human Society*, 456.
[67] Quinion, A *Drink for its Time*, 10.

recommended that the producer "separate a considerable part of the Lee from the Cider before it had fermented," which would allow it "to retain a very great part of its original sweetness."[68] Neil's method would have short-circuited fermentation over the course of drawing off the juice from one vessel to another multiple times before fermentation could fully act on the sugars.

Bottling technology made significant progress in the 1630s, especially in terms of stronger glass, but also in the wide adoption of stoppers made from cork as opposed to clay. A new type of coke-fired glass called "English glass" was the first of its kind that could withstand the pressures of carbonated beverages. This crucial innovation allowed cider makers the option of placing between a "raisin" and a "walnut" of sugar in a bottle to spark a second round of fermentation, increasing both palatability and keeping quality.[69] Royal Society member Christopher Merret's papers suggest purposeful secondary fermentation was practiced from a very early stage after the development of English glass, certainly by the 1650s. In addition to imparting a vigorous sparkling quality to the drink, the carbonation importantly greatly increased shelf life, allowing cider to be shipped much longer distances before spoilage set in.[70] As with most other production stages, some authors disagreed, instead specifically recommending waiting until fermentation was fully completed before bottling in order to suppress the "windy quality" it might otherwise have.[71] Cider that was not bottled would be stored in casks, some of gigantic proportions. Beale relates that he had seen such vessels as could carry up to 16 hogsheads (over 1000 gallons), and had heard of one owned by a certain John Winter that stored around 30 hogsheads.[72] Though such numbers sound immense, across the channel in Normandy

[68] Neil, "Discourse of Cider," 40-46.
[69] Beale, "General Advertisements Concerning Cider," 32.
[70] French, *The History and Virtues of Cyder*, 123; Worlidge, *Systema Agriculturae* 129; Austen, *A Treatise of Fruit-Trees*, 70-71.
[71] Taylor, "Of Cider," 62; Beale, "Advertisements on the Vinetum Britannicum," 847.
[72] Beale, "Advertisements on the Vinetum Britannicum," 847.

there were documented cider storage reservoirs of over 800 hogsheads in the nineteenth century, making the earlier English figures more plausible.[73]

Bottling cider was apparently new enough in this period to have made it the subject of misconceptions, as in the case of Beale supposing that the beverage left alone long enough in bottles would "turn to Aqua-vitate"… and "catch[ ] flame speedily" when opened."[74] While this would not have actually happened, English producers of apple brandy often did distil cider. Historian John Chartres has argued the amounts of cider used for this purpose were never particularly high, being around 5-10% of the distillate base during select years when the availability of other materials was constrained through war.[75] He points to the unreliability of cider crop size and the cheapness of alternative materials malt and molasses that made cider the "third-best choice as a raw material." Large distilling operations using cider as a base did exist, though, as in the case of Captain Wintour's cider brandy operation that paid 17,000 pounds in excise tax in 1696 alone (distilling brandy from corn having been temporarily prohibited).[76] Additional excise impositions after 1708 and the removal of the ban on using corn curtailed the industry such that it would be a minor force in England thereafter, though it would emerge as an article of importance in the American colonial context.[77]

Depending on the varietal, the desired alcohol strength, and the taste of the producer, cider could be imbibed immediately after fermentation, or left so long that it could "keep the Records of late revolutions and old Majoralties."[78] Most writers recommended at least a few

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[73] George M. Musgrave, *A ramble through Normandy; or, Scenes, characters, and incidents in a sketching excursion through Calvados* (London: D. Bogue, 1855, 206-9.
[74] Beale, "General Advertisements Concerning Cider," 38.
[75] Chartres, "No English Calvados?," 329-30, 334, 342.
[76] Joan Thirsk, "Agricultural Policy: Public Debate and Legislation," in *The Agrarian History of England and* Wales, vol. V, *1640-1750*, part 2, *Agrarian Change,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1985), 345.
[77] Patrick T. M. Woodland, "The Cider Excise, 1763-66" (D.Phil. diss., St. Peter's College, Oxford, 1982), 34.
[78] Beale, "General Advertisements Concerning Cider," 38.

months for the drink to age, with some suggesting it should be drawn into multiple vessels at different stages of the aging process. For hogsheads, Newburgh recommended old white wine or vinegar casks, so long as one did not use barrels that had kept claret or sack. As to be expected, Mascall specifically recommended "vessels of white wine, or of sack or of Claret." The final product differed in alcohol strength based on varietal, how much sweating the apples had undergone prior to milling, whether additional water was added in the milling, pressing, or fermentation stages, and the degree to which the yeasts consumed all sugars present. Roger French has estimated that the high-grade variety averaged between 6-12% in alcohol content, while various diluted ciders called "ciderkin," "small cider," "beverage," "perkin," "pomepirkin," and "stretched cider" were on average closer to 4% or less.[79]

II. The Prior History of Cider in England, Roman Britain

Confusingly, cider's earlier history in England has variously been described as having begun during pagan times, the Roman occupation, the early medieval Anglo-Saxon era, or during either the post-Conquest Norman or Plantagenet periods.[80] Somewhat ambiguous records possibly attest to English cider consumption from the pre-Conquest Anglo-Saxon period, though these have been disputed. Attempts to accurately convey the extent or existence of cider in early England are frustrated by the propensity of early writers to refer to cider as apple "wine" in the post-Conquest period, and possibly under the name "beor" in the Anglo-Saxon period. This, combined with the tendency of cider to be consumed at the site of production, meant that the

[79] French, *The History and Virtues of Cyder*, 13-19.

[80] Ann Hagen and Ted Bruning provide the most thorough treatments of pre-early modern English cider that I am aware of, though Bruning's conclusions on the timing of cider's introduction to England and the necessity of screw-press technology to facilitate large-scale production are disputed below. See: Ann Hagen, *Anglo-Saxon Food and Drink: Production, Processing, Distribution and Consumption* (Norfolk: Anglo-Saxon Books, 2006), 55-58, 199-202; and Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordshire: Authors OnLine Ltd, 2012), 13-51.

majority of cider would not have appeared in trade records, making it difficult to determine which era the product emerged in England.

The presence of wild apples in Britain has a documented history dating before the Roman occupation.[81] One commonly finds assertions, especially in non-academic literature, that the Romans found local Celtic peoples already engaged in cider production upon Julius Caesar's arrival, but this stretches the definition of cider beyond its modern meaning. Caesar describes Britain as uncultivated, precluding systematic orcharding. To the extent that a pre-Roman origin has found purchase in academic writing, William Alwood is typical of such claims. He gestures towards speculative conclusions made by nineteenth-century naturalist Sir George Birdwood, as cited in Charles Cooke's *Cider and Perry*, suggesting that cider was introduced by the Phoenicians based nearly entirely on an etymological reading of the word *cider*.[82] Recent archaeobotany studies have concluded that the domesticated apple is a descendent of *Malus sieversii* of central Asia, and "contrary to what was previously thought, its wild progenitor was not *Malus sylvestris*, the native British crab apple." This is at least suggestive of a possible introduction of the domesticated apple through Roman connections to Britain.

The introduction of grafting technology to northwest Europe has similarly been dated to the Roman period rather than predating their arrival.[83] The implication is that Celtic Britons would have been entirely reliant on foraged wild, uncultivated crab apples, and though these can be combined alongside domesticated apples to add flavor and tannins to cider, a product made

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[81] This does not appear to have included the domesticated apple, Malus domestica. See: Rebecca Roseff, "The Origins of Orchards and Cider and Perry in England with particular reference to Cider," in *Landscape Archaeology and Ecology*, vol. 7, *Orchards and Groves; Their History, Ecology, Culture and Archaeology*, ed. Ian D Rotherham (Sheffield, U.K.: Wildtrack Publishing Ltd., 2008), 120-121.
[82] William B. Alwood, *A study of cider making in France, Germany, and England with comments and comparisons on American work* (Washington, D.C.: U.S. Govt. Print. Off., 1903), 11.
[83] Marijke Van der Veen, Alexandra Livarda, and Alistair Hill, "New Plant Foods in Roman Britain — Dispersal and Social Access," *Environmental Archaeology* 13 (2008), 33.

primarily from them would have been intolerably harsh. The extraction of alcohol from these crabs, which tend to have a lower sugar content than domesticated apples, would have likewise been challenging. While there are no records of cider being produced in Britain during the Roman period, large apple kernel deposits near Roman settlements and a documented Roman taste for cider make the possibility worth considering. Contemporary writers made it clear that Romans produced and drank cider from apples, pears and other fruits in the Mediterranean basin: "Both cider and cider vinegar are discussed by Palladius (fifth century AD); cider had previously been mentioned in asides by Pliny and Plutarch. A recipe for a strong cider or apple wine, Greek *hydromelon*, is given in the Byzantine *Geoponica*."[84]

One of the major innovations that enabled Roman cider production was the development of better press technology. Cato wrote of lever presses being used on estates for industrial olive oil production in *De Re Rustica*, and it would have made intuitive sense to use both olive and wine presses for cider production when these machines were otherwise idle. Ted Bruning has argued that wine presses would have made cider production on an industrial scale feasible, while the added revenue from cider produced after wine pressing operations were over for the year would have augmented the economic viability of winemaking.[85] However, no records exist that suggest the Romans actually brought their cider-making expertise to Britain.

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[84] Pliny *NH* 14.103; Plutarch *QC* 3.2 (*melites*); Palladius *OA* 3.25.19; *Geoponica* 8.27 as cited in: Andrew Dalby, *Food in the Ancient World from A to Z* (London: Routledge, 2003), 20.
[85] Bruning, *Golden Fire*, 15-16, 23-24.

III. The Anglo-Saxon Period

Cider apples and grafting techniques were probably preserved in part by monastic orders on the Continent after the fall of Rome.[86] Monasteries were not only producers of technically demanding fruit goods, but were prodigious consumers of both fruit and fruit-based beverages, the most notable of course being wine.[87] The Anglo-Saxon monastery at Ely was renowned for its vineyards, and, after it was refounded in 872, established orchards and fruit tree nurseries as well. These religious houses kept in contact with their counterparts on the continent where perry drinking is attested to in France in the sixth, eighth, and ninth centuries.[88] Apple orchards appear in the tenth-century Welsh laws of Hwyel Dda and the North Wales Code, with interwoven references to grafting and monastic orchards.[89]

The Anglo-Saxon term "orceard," itself coming from "weortyeard" (or "plant yard"), increasingly took on the modern meaning of "orchard" during this period. This was not automatically a place for fruit but was associated with fruit by the eighth century and increasingly so by the eleventh, with phrases like "apple orchard" appearing in the Domesday Book. References to apples and pears were widespread, including in religious, medical, and estate record contexts.[90] As with much else in Anglo-Saxon England, written records indicating cider's presence are ambiguous. While cider does not appear to be attested to directly in the Anglo-Saxon period, Frederick Roach has shown many varietals of apples were present that

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[86] Ben Watson, *Cider, hard and sweet - history, traditions, and making your own* (New York, NY: Countryman Press, 1999), 12.
[87] James Samuelson, *The History of Drink: A review, social, scientific, and political* (London: Trubner & Co., 1880), 120-125.
[88] Hagen, Anglo-Saxon Food and Drink, 56, 201.
[89] Roseff, "Origins of Orchards and Cider and Perry in England," 121.
[90] Hagen, *Anglo-Saxon Food and Drink*, 55-61.

would have made cider production likely, even if he believed the "art" of cidermaking probably was largely introduced by the Normans.[91]

Hagen has opposed the view that cider went unmentioned, arguing that the Anglo-Saxon *beor* was in fact cider, not beer as has been sometimes supposed (thus in keeping with the early Norman word for cider, *bère*). Several contextual clues point Hagen to conclude *beor* was cider, including its sweetness and that a glossed term for *beor*, *ydromellum*, was at other times glossed with *ofetes wos* (fruit juice) and *aæppel win*.[92] Her analysis is hampered by the fact that many of the references to *beor's* sweetness were twinned with references to its great alcoholic strength. While cider can certainly be sweet, Hagen errors in suggesting it could also have been exceptionally strong.[93] Fully fermenting apple juice to the highest possible alcohol level removes the residual sugars in the drink, meaning one can make sweet cider or high-strength cider, but not both without additional interventions. Whereas she claims cider could have continued fermenting up to 18% alcohol by volume, historian Roger French has shown far lower figures, generally around 12%, at most, under optimal conditions and with relatively advanced practices.[94] Ted Bruning has suggested that Anglo-Saxons could have utilized methods similar to those later practiced in New England to make *applejack*, which increased alcohol strength while preserving sweetness; this involved letting barrels of cider freeze and then removing pieces of ice as the water in the cider froze, thus leaving increasingly concentrated alcohol. Given the lack of evidence that this method was utilized, Bruning disagreed with Hagen's analysis that *beor* was cider, though the possibility is tantalizing.

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[91] Frederick A. Roach, *Cultivated Fruits in Britain: Their Origin and History* (Blackwell, 1985), chapters 13-16.
[92] Hagen, *Anglo-Saxon Food and Drink*, 199-202.
[93] Bruning, *Golden Fire*, 28.
[94] French, *The History and Virtues of Cyder,* 13-9.

Bruning's primary disagreement with Hagen was not in relation to alcohol strength, however, but the near absence of documented screw presses in Anglo-Saxon England, which in his telling would have precluded the possibility of wide cider production. He argues that "cider production certainly does" require a press, and that "to make cider, the Saxons would have had to possess the technology to make wine: in particular efficient mechanical pressing equipment."[95] Based on a lack of direct evidence of such presses, and a roughly 100-year lag in time between the Norman Conquest and later unambiguous references to cider making in England, Bruning suggests a relatively late date for cider production in the Plantagenet period. Curiously, he proceeds to cite Hagen's extensive collection of Anglo-Saxon sources which argue for widespread viticulture in England from the seventh century forward, leaving behind his earlier suggestion that cider production and winemaking were complementary activities. Hagen noted the Anglo-Saxon word *gewring* was in use, which suggested "juices or liquids that were pressed out," and while this could have been accomplished with manual foot stomping in the case of wine, hand-held beaters of the type later documented in use for cider are also plausible.

Bruning's assertions regarding the necessity of screw presses are disputed below, but his objections to Hagen's supposition that *beor* was the Anglo-Saxon word for cider appear to be well-founded. On the balance, it appears likely that some early form of cider was produced and consumed in England prior to the Conquest, though little documentary evidence survives to attest to this.

[95] Bruning, *Golden Fire*, 25-26, 31-32.

IV. Post-Norman Conquest

A preponderance of historians have traditionally pointed to the Norman Conquest as an inflection point for the production of cider in England.[96] English orchards likely would have received a beneficial injection of continental expertise, fruit varietals, and press and mill technology from increased contact with the major apple growing region of Normandy. These impacts would have been disparately felt depending on location, however. In the case of apple varietals, for instance, certain transplanted cultivars would have done better or worse depending on the similarity of the new local climate to the original conditions across the channel. Apple varietals notoriously perform better where they originate from; for instance, Britain is home to varieties that excel in the exposed conditions in the Easter Ross Highlands but would not do well in other parts of Britain and *vice versa*.[97] Inklings of conscious efforts to develop new varietals exist for the period directly after the Conquest, as evidenced by the twelfth-century references to the "wardounds" pear varietal established at the Bedfordshire Warden Abbey.[98] New types of pears and apples would likely have been grafted onto local crab stocks, a practice that obtained near-consensus status in improvement literature in later centuries for creating more robust trees with better fruit.[99] Beyond providing root stocks for cider production, crab trees were valuable in their own right for providing fruit to make verjuice, a formerly important medieval cooking

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[96] For example, see: Mark Foot, *Cider's Story: Rough and Smooth* (Nailsea: Design Principles, 1999), 12; Stuart Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," in '*Liquid Nourishment': potable foods and stimulating drinks*, ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993), 79; C. Anne Wilson, *Food and Drink in Britain from the Stone Age to Recent Times* (London: Constable, 1973), 382; Louis Francis Salzman, *English Industries of the Middle Ages: Being an Introduction to the Industrial History of Medieval England* (Boston and New York: Houghton Mifflin Company, 1913), 196-7.

[97] Sue Clifford and Angela King, "The Apple, the Orchard, the Cultural Landscape," in *Local Distinctiveness: Place, Particularity and Identity*, eds. by Sue Clifford and Angela King (London: Common Ground, 1993), 73-5.

[98] Hagen, *A Second Handbook of Anglo-Saxon Food and Drink* (Norfolk: Anglo-Saxon Books, 1995), 49.

[99] See for instance: Worlidge, John. *Systema Agriculturae*, 109.

component.[100] The presence of crab apple trees in medieval records are thus ambiguous in that they may indicate cider or verjuice production, both, or neither.

More precise cider records for the early period do exist, however, and are illuminating. The Cider Museum of Hereford notes 19 references up through 1475, and several of these are instructive in showing the scale of production as well as the reach of the product into everyday life. These sources reveal the drink was being tithed, produced at religious centers, shipped to England from foreign ports, made from purpose-built mills of considerable value, and potentially being stolen from houses by thieves. A 1349 reference to buying cider in Shoreham shows just how large some of the purchases of the era could be, the cider being worth £34 6s 8d, with the cost of carriage and storage totaling another £10 12s 6d.[101] Though barrel sizing varied during this period, if they were of standard capacity the sale of 51 barrels and one pipe of cider in this case would have amounted to over 1730 gallons, no meager load.[102]

For this period scattered evidence points towards a considerable cider industry and developed trade network. Records are particularly strong for Sussex, which for reasons of geography implies a possible connection to Normandy production centers. By 1341, the Nonae Rolls demonstrate that at least 74 separate parishes were tithing cider in West Sussex alone, demonstrating consumption likely extended beyond limited elite settings.[103] French and English ciders make occasional appearances in port books, suggesting it was not merely a locally consumed foodstuff, though these mentions are dwarfed by the wine trade. It is likely that the

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[100] Rogers, *A history of agriculture and prices in England*, vol. 1, 18.

[101] T.N.A. E 358/1, as cited in "Medieval References to Cider," The Archive of Cider Pomology, The Cider Museum, accessed February 10, 2018, http://www.archiveofciderpomology.co.uk/origins_of_cider.htm.

[102] A barrel was equivalent to one eighth of a 252 gallon "tun," while a "pipe" was half a tun. "Hogsheads" would become the preferred unit of measuring cider eventually. A hogshead could range anywhere from 48-140 gallons depending on the article being packed and the inclination of the producer, though most cider hogsheads were the same as those used for wine, equaling 63 gallons.

[103] Salzman, *English Industries of the Middle Ages*, 196-7.

trade in cider was somewhat curtailed through early laws that outlawed the "exportation of grain and other victuals to foreign parts," though customs rates of 2d for "a tun of cider carried by sea or by land" show that internal trade was taking place in Southampton around 1300.[104] Incidences of cider sold in Southampton remained infrequent enough that in 1344 a Baron of the Exchequer charged the local bailiff with dereliction for failing to collect duties on cider, to which he replied that none had been sold "except by men who were quit of custom," referring to privileged local merchants. The implication in the bailiff's report is that cider was indeed being traded even if such sales were not reflected in official figures, a problem common to cider quantification efforts in all time periods covered by this study. By 1440, "pomadr" and "pomarum" were being exported from Southampton, though usually in middling volumes of one to two pipes (126 or 252 gallons) at a time. These quantities and irregular shipping records imply that the type of cider that was transported long distances would have been the high-quality variety rather than a daily consumption article.[105] This arrangement anticipates later patterns; the vast majority of cider produced would be of ordinary or poor quality, consumed locally, and not recorded in official account books, while a tiny fraction would be made to high standards and traded to wealthy consumers outside the immediate production area.

V. Assessing the degree to which cider was a luxury good in the medieval and early modern periods

While a Norman connection with early English cider production efforts is possible, not all historians have agreed with this timeline. Ann Hagen's theory that cider was relatively

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[104] Paul Studer, ed. and trans, *The Oak Book of Southampton of c. A.D. 1300*, vol. 2 (Southampton: Cox & Sharland, 1910), xviii, 3.

[105] Henry S. Cobb, ed., *The Local Port Book of Southampton for 1439-40* (Southampton: University of Southampton Press, 1961), xv, 27, 30.

widespread in the Anglo-Saxon period under the name of *beor* has already been touched upon. Ted Bruning's claim that cidermaking would not have been possible before the Plantagenet period due to the lack of advanced pressing technology is now worth turning to.

Regardless of the presence or absence of screw presses in England prior to the twelfth century, Bruning badly overstates the necessity of such presses (though he later hedges slightly in his discussion of the early modern period). For the early period he emphasizes that presses would have been a considerable financial investment, particularly beam presses but also the cutting of screws for screw presses, to suggest that only elite, financially robust estates would have been major producers of cider, and that the drink would not have been consumed by the lower orders.[106] This argument is seriously flawed in multiple respects.

Available price data from the early period flatly contradicts the notion that cheap cider was unavailable to poor drinkers. James Rogers' study of corporate estates of Oxford and Cambridge colleges found that for the thirteenth and fourteenth centuries, cider's "low price seems to suggest that it was made in considerable quantities," and that "cider was served out on some estates to the harvest labourers in lieu of beer."[107] Over the 130 years' worth of cider records he covers, cider ranges in price from 0.32d per gallon to 1d per gallon. This compared to the price of ale, which was fixed by statute in 1283 at 1.5d per gallon for the better-quality kind and 1d per gallon for weaker ale.[108] The more expensive cider price entries in Rogers' study probably represent years with poor apple harvests, usually occurring due to early frosts that would have killed apple blossoms. Historically, this was a common issue that violently impacted

[106] "Those few references [to cider] always occur in an aristocratic or landowning context, for the heavy capital investment needed to mill and press apples and pears in worthwhile quantities made cider a rarity, even perhaps a luxury, and certainly not the common beverage of the peasantry." Bruning, *Golden Fire*, 21-22.
[107] Rogers, *A history of agriculture and prices in England*, vol. 1, 17-8, 419.
[108] Salzman, *English Industries of the Middle Ages*, 186.

cider prices up through the nineteenth century and beyond. For the 75 years Rogers finds cider price data between 1261-1385, the average price is 135.52d per tun (252 gallons), or a mere 0.54d per gallon. These figures include prices from the more expensive markets in Kent and the neighborhoods near London, as well as multiple famine years including the highly food-insecure decade of 1361-70, so these prices should not be interpreted as being artificially low.[109]

Bruning grudgingly admits that "cidermaking by the sixteenth century seems not to have been entirely the preserve of the well-capitalized landowner" for the simple reason that there is too much documentary evidence demonstrating production by non-elite farmers in the sixteenth and especially the seventeenth centuries.[110] Bruning suggests that some of this non-elite cider product might have been made through maceration (the boiling of sliced apples) rather than the mechanical extraction of fruit juice from presses. Alternatively, he notes some would have been made through the deployment of ad-hoc lever presses and crude apple milling accomplished by pounding the apples with wooden beaters in a "beetle and tub" approach. Bruning argues such methods would have required so much labor as to remit them to mere "hobbies." If these approaches genuinely were to explain the proliferation of cidermaking among middling-sort farmers in the sixteenth and seventeenth centuries that one sees in court, probate, and account records, it is unclear why the methods would not have been available in earlier period as well. Further, if the labor to make cider in these alternative ways was indeed so high, why were many middling farmers eager to undertake this activity at such a large scale? Other explanations are more likely.

Firstly, screw presses were not necessarily as expensive as Bruning supposes. As he himself notes, the eventual decline in the price of screw presses through the mechanical cutting

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[109] Rogers, *A history of agriculture and prices in England*, vol. 1, 419.
[110] Bruning, *Golden Fire*, 23-24, 49.

of screws would not have obtained "until the late eighteenth century," but seventeenth and eighteenth-century legal and probate records are replete with mentions of cider presses, often at low prices. For instance, a cider "wring" (press) was bought by the rector of Morval for a mere 13s in 1718.[111] Different prices for different levels of quality of screw presses existed, as indicated by Henry Allen's advertisements in both newsprint and John Worlidge's *Vinetum Britannicum*. Allen not only manufactured the newly invented "Ingenio" cider mill with "great variety" and "of every sort," but traditional "skrew presses" with either iron or wooden screws at correspondingly higher or lower prices.[112] To the extent that presses would still have been beyond the financial means of some farmers, Bruning omits the level to which a single press would have served an extended network of surrounding farms. Rural account books from the capital-constrained early American colonies demonstrate the wide practice of renting the use of singular presses to multiple farmers.[113] In a 1733 example of press sharing from Cornwall, the directionality was reversed from what one might expect, where in this case the estate owner contracted a memorandum of understanding that preserved the right "for the lord to pound his cyder" in the tenant's mill house.[114] Regardless of directionality, relatively small numbers of presses would have serviced much larger numbers of producers than probate records imply.

However, even with the sharing of presses between multiple producers in mind, tracing the presence of large pieces of cidermaking equipment would still only indicate a fraction of the cider produced in the early era. Colonial American historian Sarah Hand Meacham has documented extensive use of hand "beating" of cider "apples in troughs in the traditional fashion,

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[111] "Account book, possibly of Reverend Thomas Dawe, rector of Morval, 1718-1726." CRO DDHL/2/136
[112] Worlidge, *Vinetum Britannicum,* 107, 239; Henry Allen, "Advertisement for a new invented Engine," *True Domestick Intelligence or News Both from City and Country* (London), issue 32, October 24, 1679.
[113] See for instance: Peletiah Pease, "Account Book, 1760-1769," Wint. Fol. 403; Elijah Pember, "Account Book, 1756-1811," Wint. Fol. 225; Phineas Chapin, "Account Book, 1782-1812," Wint. Fol. 128.
[114] "Memorandum of 'bargain contracted', Calstock," CRO CF/2/810, 23 Nov 1733.

with cone-shaped pounders on four-foot handles." This activity, primarily done by women and often going undocumented in written records, existed alongside the more familiar milling of cider at larger planter households.[115] This practice persisted as late as the second half of the eighteenth century in the Chesapeake region of colonial and early America, and it was similarly practiced in England. Indeed, there was conspicuous mention of the technique in printed cider literature. Bruning notes this is Gervase Markham's preferred method in his 1613 manual, but it is also given as an option by multiple authors over fifty years later in John Evelyn's *Pomona*, Ralph Austen's *A Treatsise of Fruit-Trees*, and John Worlidge's *Systema Agriculturae*, by which time the evidence for widespread adoption of cidermaking is overwhelming.[116]

John Beale directly addressed the question of achieving large-scale production without resorting to expensive stone mills in a tract sent to the Royal Society 1676. In reply to those potential producers of cider who were worried about the up-front cost of mills and presses, Beale wrote:

> And because many do discourage themselves from planting Cider-orchards, saying, that if they had the fruit, they should yet want many matters too costly for them: For their sakes, I shall here instance, that in all the neighbourhood round about us, they that make 20 hogsheads of Cider yearly, and much more, do pound all their fruit in Troughs, made for the purpose deep and strong, with broad feeted pounders, one, two, or three (as their need requireth) pounding together in the same Trough, And to me they hold the paradox stoutly, That without more cost or trouble, this is the best and cheapest way. Workmen are cheaper in the Country at some season, than in some Cities. And tis a charity to employ Men that want employment.[117]

[115] Sarah Hand Meacham, *Every Home a Distillery: Alcohol, Gender, and Technology in the Colonial Chesapeake* (Baltimore: Johns Hopkins University Press, 2009), 4.
[116] In *Pomona*, Sylas Taylor compares the "beaters" to "such as Paviers use to fix their pitching" while suggesting the trough can be made of wood or stone. Dr. Smith is more opiniated in preferring grinding the apples in wooden "cases" rather than ones of stone, implying a mortar and pestle approach rather than a full stone wheel mill; Markham, *The English Husbandman*, 88; Smith, "Concerning Cider, 58; Taylor, "Of Cider, 61; Austen, *A Treatise of Fruit-Trees*, 70; Worlidge, *Systema Agriculturae*, 127.
[117] Beale, "Advertisements on the Vinetum Britannicum," 847.

In addition to this hand-beating approach, the option of making cider through maceration rather than pressing also survived quite late. This was evidenced by William Salmon's 1695 recipe for making "Syder another way," which instructed readers to "take a peck of Apples and slice them, and boil them in a barrel of water... then cool your water as you do for Wort."[118] These methods for making cider in ways that would not have left identifiable marks in probate records persisted into a later period as telling clues for how non-elite pre-early modern cider would have been made in the absence of mills and presses.

Accounts from the sixteenth and seventeenth centuries make plain that both production capacity and consumption of cider extended far down the economic spectrum, which supplements the more limited data suggesting the same for the earlier period.[119] Complementing probate and account book records that demonstrate that cider production was not an elite-only preserve, the words of seventeenth-century improver writers also make this clear. "Epistles to the reader" and other forms of introduction were frequently addressed to the yeomanry and middling farmers. Improver writer Walter Blith, who served as a captain in the parliamentary army during the Civil Wars, included one such epistle directed to "the Honorable Souldiery of these Nations of England, Scotland, & Ireland." In his 1653 edition he acknowledges that the soldiers had recently been paid their arrears in the form of "lands designed for your pay," and suggested cider making as a worthwhile enterprise on these new farms. Blith would have known first hand that these soldiers would have had precious little capital to expend on expensive improvements, and yet he heartily recommended they plant their hedgerows with fruit trees that "yield either in Perry or Sider" in order to alternatively "be transported into other parts, or else to releeve our

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[118] Salmon, *The Family Dictionary*, 157.

[119] Another example of lower-order consumption from the sixteenth century comes from physician Andrew Boorde, who associated cider drinking with laborers collecting the harvest. Andrew Boorde*, The Compendious Regiment, or, Dyetary of Helth* (London: Wyer, 1542).

poore at home."[120] Here, Blith directly states the two main options for cider production: to make cider for local lower-order drinkers or to make (higher-grade) cider as a trade article for transport to urban areas. This same binary existed on elite estates as well, as seen through John Gerard's telling of a "worshipful gentleman… of Hereford called Master Roger Bodnome," whose hedgerows were so thick with fruit "that the seruants drinke for the most part no other drinke but that which is made of Apples."[121]

The conclusion one must reach, therefore, is that tracing the presence or absence of continental screw press technology in England is not an appropriate proxy for determining whether cider was being produced in a given era. The widespread presence of cider making among farmers with limited means in the later period before screw presses became notably cheaper demonstrates that the inability to acquire such production pieces would not have been an insurmountable bottleneck for production of locally consumed cider. However, the presence of presses would still have been important for high-end production and facilitating trade-focused cider in larger volumes. Cider as a luxury article for wealthy consumers is clearly attested to soon after the Conquest, as when the drink was listed on the pipe rolls of Henry II for 1184, or when early thirteenth-century historian Gerald de Barri noted its consumption by monks at Canterbury as a sign of their decadence. But there is no reason to suspect that early production was restricted to the elite market and some evidence suggesting otherwise. The relative dearth of early records of cider as a staple good for poor laborers should be taken as a function of the types of records that were created and tended to survive rather than illustrative that cider was unknown to the lower orders.

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[120]His enlarged 1653 version of an earlier manual printed by him in 1649 carried both this epistle and a much-enlarged section on fruit trees and cider. Walter Blith, *The English improver improved, or, The survey of husbandry surveyed discovering the improveableness of all lands* (London: Printed for John Wright, 1653), xviii, 146.

[121] John Gerard, *The Herball or Generall Historie of Plantes* (London: John Norton, 1597), 1275.

VI. Cider as an object of cultural interest: medieval and early modern comparisons

By the seventeenth century it became commonplace for writers to speak of cider as a naturally *English* drink, as contrasted with earlier references that almost always emphasized its regional character. Arguments of this sort generally focused on the environmental aspect of cider's "Englishness": that is, apples grew easily in much of England and locally produced foods were thought to better accord with the "constitutions" of the nearby population.[122] However, claims of cider's English qualities also extended to the cultural sphere. Charles Cotton's exhortations in his 1675 pamphlet, *The Planters Manual*, against importing fruit from the continent at the expense of growing locally were typical in this regard. Cotton advised that imported fruit was not merely inconsistent with the "constitution" but the "honour of the *English* Nation," and worried that furnishing fruit from France would only continue a trend where England would "altogether be debauch'd by their effeminate manners, luxurious kickshaws, and fantastick fashions, by which we are already sufficiently *Frenchified*."[123] While cider was clearly imbricated with a sense of cultural Englishness by the late seventeenth century, collective consciousness of the product vacillated widely prior to this.

The early impact of cider on England's cultural landscape is difficult to assess, in part because of the convoluted etymology of the medieval words used for cider. Derived from the Hebrew word for "strong drink" or "intoxicating liquor," *schechar* was Latinized into *sicera*, *ciser*, and *sizeram*. From this came the Old French *sidre*, and thence to English as sydir, sider, *syder, cyder*, and a multitude of other spellings.[124] The original meaning of schechar has been preserved in several modern words for intoxication, as in the American English "schnockered" or

[122] For a full treatment of the claims of cider's *Englishness*, see Chapter Three.
[123] Cotton, *The Planters Manual*, vii.
[124] Oxford English Dictionary, "Cider," (Oxford: Oxford University Press, 2020).

British English "shikkered."[125] Though the English equivalents of *sicera* came to be associated mostly with cider, considerable ambiguity remained for the Latin names.[126] In 1494, Johannes Hertzog's *Catholicon* defined *sicera* as "a wine made from fermented grain or apples," illustrating the problem.[127]

Thus, scholars have alternatively read Chaucer's use of "ciser" as either referring to cider or merely "strong drink" when he describes Sampson in the "Monk's Tale" as one who "nevere cicer drank ne wyn."[128] A passage from the Gospel of Luke in the English vernacular Wycliffe Bible has been similarly read both ways.[129] The traditional telling of King John's death by Matthew of Paris also blamed "sicer," but because of context it was clear this was a reference to cider. The account claims it was "new sicer" that killed the king, and given new cider's reputation as particularly harmful to health and the date of his death being in the cider-making month of October, "that word can mean 'cider' and nothing else."[130] Given that John died in Lincolnshire county, relatively far north of cider's eventual early modern range, one might be skeptical of why new cider was on hand, but as a later section will show, cider production was hardly unknown in these northern areas during the climactically warmer period prior to the Little Ice Age. Even if these suggestive examples gesture towards some form an English cultural consciousness surrounding cider, Louis Francis Salzman's lament rings true of there being "little

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[125] Annie Proulx and Lew Nichols, *Cider: Sweet and Hard. Making it, using it, and enjoying it* (Charlotte, V.T.: Garden Way Publishing, 1980), 4.

[126] Even today, the English word "cider" does not exclusively refer to fermented apple wine but can cover drink made from pears (perry) or a large number of other fruits.

[127] Charles Wallwyn Radcliffe Cooke, "Cider," in *Journal of the Society of Arts* 43 (1895), 405.

[128] Depending on the manuscript source, "ciser" is also written as "sicer" (Hengwrt MS., no. 154), "siser" (BL Harley MS 7334), "sythir" (Lansdowne MS. 851), or "cyder" (Corpus Christi College, Oxford, MS. no. 198). Walter W. Skeat, *The Complete Works of Geoffrey Chaucer*, 2nd Edition (Oxford: Clarendon Press, 1900), 246.

[129] Luke 1:15, "Sothli he schal be greet bifore the Lord, and he schal not drynke wyn and sydir [depending on the MSS version also rendered *cyser* or *cyther*], and he schal be fulfillid."

[130] Rev. F. Spurrell, "Notes on the Death of King John," *The Archaeological Journal*, vol. 38 (Royal Archaeological Institute: London, 1881), 308.

to record" in the middle ages "beyond an abundance of casual references to cider presses and to the purchases and sale of cider."[131]

By the sixteenth century, however, an upwelling in intellectual interest in cider is evident. The transition of Kent's lands to a rich table fruit orchard is often credited to Henry VIII's fruiter, Richard Harrys, who introduced the latest grafting methods from France and is said to have brought many new apple varietals with him back to England. Writing a hundred years later, John Evelyn favorably compared the example of Harrys in Kent to the cider orchard efforts of Viscount Scudamore in Herefordshire.[132] Around the mid-sixteenth century, a trickle of printed works on cider and grafting methods began to appear in London, through which one can glimpse additional transmissions of Continental knowledge. Leonard Mascall's 1569 book included Dutch, German, and French cider-making practices, and educated its readers, for example, to "do not as they do in the Countrey of Mentz [Mainz]" when "resting" their apples before grinding, and suggested mixing "cloves, mace [nutmeg], cinnamon, and ginger" into cider as was being done in the latest Dutch methods.[133] The shipment of 84 barrels of apple kernels from Normandy in 1541 at the high rate of five shillings per barrel (as compared to only five pence per barrel for apples) shows that the English were keen to expand their orchards with French fruits, providing further evidence for cross-channel knowledge and material transfer.[134] This type of conveyance of ideas and articles from the Continent would reassert itself later in the mid-seventeenth century with new works being translated into English and examples of new varietals from "the orchards

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[131] Salzman, *English Industries of the Middle Ages*, 198.
[132] Evelyn, *Pomona*, 2.
[133] Leonard Mascall, *A Booke of the Arte and maner howe to plant and graffe all sortes of trees… and sowe Pepines to make wylde trees to graffe on. … With divers other new practise, by one of the Abbey of Saint Vincent in Fraunce. … With an addition … of certaine Dutch practises, set forth and Englished* (London, 1569), 7, 74.
[134] Louis Francis Salzman, *English Trade in the Middle Ages* (Oxford: Clarendon Press, 1931), 369-70.

of France" coming to the notice of English cider producers.[135] The rise in intellectual interest in cider is more fully covered in Chapter Three of this dissertation.

VII. Sixteenth-Century Decline

A curious reversal of fortune befell cider in the late-medieval period in England. The retrenchment of cider in the sixteenth century is suggested through probate records, many of which hint at the product's retreat from old production areas. A collection of 125 inventories between 1548 and 1575 from Southampton, a formerly robust cider production area adjacent to the prolific West Sussex parishes mentioned above, shows only one instance of a person's estate containing cider making goods.[136] The only producer, Thomas Etuer, deceased in 1562, was notably not even from a local family, but instead belonged to a family from Jersey. These 125 inventories are filled with examples of beer, wine, aqua vitae, and other drinks, indicating the region had firmly moved on from general cider production.

The previously referenced study of the corporate estates of Oxford and Cambridge colleges provides another example of holdings where prolific cider production declined in the later medieval period. Rogers lists 75 years with cider production being attested to on these estates between 1261-1385, a significant showing. A further seven entries exist for the period of 1402-1463.[137] By the sixteenth century, however, it is clear that cider production was in fast decline: only ten entries exist between 1488-1579, and production proceeded to collapse entirely

[135] John Beale, "Of the Seminary," in *Pomona*, ed. Evelyn, 8.

[136] Etuer's inventory contained many of the hallmarks of cider production, including: "3 pypes di'e of syder… in the greate Shopp a pipe di'e of syder, a fonell for sider, a pype caske… in the kitchin & backside 3 quartrs of aples, a gryndinge stone… in the archerd [orchard] 3 syder vates and one hogghd caske…," etc. Edward Roberts and Karen Parker, eds., *Southampton Probate Inventories 1447-1575,* 2 vols. (Southampton: Southampton University Press, 1992), 175-79.

[137] Rogers, *A history of agriculture and prices in England*, vol. 1, 419, 445-450; vol.2 379-382; vol. 3, 544-556.

between 1579-1664 when there were *zero* documented cases of cider being bought or sold from these estates. Cider slowly reemerged on these landholdings following the mid-century renewal with six entries from 1665-1700, but as the major production centers in England shifted westward these estates would never again produce quantities equivalent to the thirteenth through fifteenth centuries.[138]

As noted earlier, cider was frequently recorded as a luxury item in the earlier period, but the high-end product suffered a series of notable setbacks. While the degree to which lower-grade cider was similarly impacted is more difficult to assess, there are indications it may too have been less plentiful than before. A number of factors help explain the diminishment of the cider market in the second half of the sixteenth century. In addition to the repurposing of Kentish orchard land from cider to table fruit production mentioned above, the dissolution of English monasteries in the late 1530s greatly disrupted the higher-end production of quality cider. Monasteries had been the focal point for producing much of the cider that was not consumed locally and was instead meant for elite and urban consumers. Rebecca Roseff has noted that medieval references to orchards, the spaces necessary for consistent, advanced-technique production, were often associated with monasteries.[139] The disruption of these specialized production grounds through seizure and redistribution would have had disastrous implications for the perpetuation of specialized production knowledge.

Other factors appear to have been at play as well. The introduction and rapid expansion of hops to create a new style of English beer seemingly ate into both traditional ale and cider's market shares. In the case of ale this meant the displacement of English alewives and their

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[138] Rogers, *A history of agriculture and prices in England*, vol. 4, 362; vol. 5 327; vol. 6, 237, 637.
[139] Roseff, "Origins of Orchards and Cider and Perry in England," 121.

replacement with larger, male-run hopped brewing concerns.[140] Evidence for this transition is less robust for cider, but Sarah Hand Meacham's study of gender dynamics in cider production in the early American colonies is suggestive. Meacham found that traditional hand-pressed cider production done by women was similarly susceptible to disruption when larger centers of consolidated alcohol production were established in the Chesapeake region.[141] Finally, the high grain prices that predominated in this era represented a mixed blow to cider, as the incentive to sow grain rather than plant apple trees would have been high, even as higher grain prices would also have made beer more expensive. These combined forces resulted in a self-reinforcing cycle, where fewer quality producers of cider continued their efforts, leaving cider to the purview of increasingly small producers with slipshod methods.

Thus, Beale could confidently, if erroneously, assert in 1664 that the use of specialized "crab apples" (actually wilding domesticated apples) as dedicated cider varietals was a "modern invention," for he had little knowledge of the long history of specialized production that preceded its decline.[142] Beale might have been correct in so far as he was describing the cider of the near past when he was writing, which quite plausibly was made from whatever apples were on hand, with attending negative consequences for the quality of the product.[143] Knowledge of cider and perry was limited in London and other urban centers outside of production areas during the first half of the seventeenth century. As the Parliamentarian army marched through Worcester in 1642, officer Nehemiah Wharton, who was originally from Liverpool but had also spent time in London, described the landscape to his London-based patron. In this letter Wharton

[140] Peter Clark, *The English Alehouse: A Social History 1200-1830* (London: Longman Group, 1983), 30-1, 95-8.
[141] Meacham, *Every Home a Distillery*, passim.
[142] Beale, "Of the Seminary," 8.
[143] Cider made from "eating apples" or "table fruit" tends to be cloyingly sweet and lacks the astringent acidity and tannins needed to keep cider from "falling off."

felt compelled to explain what *perry* was exactly, contrasting it with what one might find in London: "breifly Worcestershire is a pleasant fruitfull and rich Cuntrey aboundinge in corne, woods, pastures, hils, and valleyes every hedge and heigh way beset with fruite but especally with peares wherof they make that pleasant drinke called Perry which they sell for a penny a quart though better then ever you tasted at London."[144] As Wharton's account indicates, what fruit-based liquor did survive in London at this time was of dismal quality and was so different from what existed in the newly emergent cider counties as to be worthy of separate description.

The retreat of high-end producers and resultant decline in cider standards during this time appears to have had a reciprocal relationship to the souring medical opinion of the drink. The Galenic medical view, positing four bodily fluids, or "humors," came to regard cider with hostility where previously medical opinion had been largely indifferent. Physician Andrew Boorde typified this view as applied to cider in 1542, describing it as "cold" and "wet", which were characteristics thought to impair digestion:

> "Cyder is made of the iuce of peeres, or of the pace of Naples… but the beest is not praysed in physycke, for cyder is colde of operacyon, and is full of ventosyte, wherfore it doth ingendre euyll [evil] humours… & doth let dygestyon, and doth hurte the stomacke; but they the which be vsed to it, yf it be dronken in haruyst, it but may be drunk doth lytell harme."[145]

As the end of the quotation suggests, the drink was supposed to have less harmful effects on those farm laborers who were engaging in harvest duties in sweltering heat, especially if they had acclimated to the drink over time. The type of apples typically used for cider production, that is sour, tannic, and harsh, were also seen as broadly problematic under the Galenic system. John Gerard's 1597 *Herball* warns that "Harsh or Austere Apples being vnripe, are cold; they

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[144] "Nehemiah Wharton to George Willingham, September 30, 1642," Letter. TNA SP 16/492/28, ff. 80-81

[145] Boorde, *The Compendious Regiment, or, Dyetary of Helth*, as cited in French, *Cyder*, 54; Salzman, *English Industries of the Middle Ages*, 196.

ingender grosse bloud, and great store of winde and often bring the Collicke."[146] Complaints about cider's "windiness," meaning its propensity towards increasing flatulence in consumers, was one of the consistent medical complaints of cider to persist through the following period, even when cider's medical reputation was broadly rehabilitated.

Such hostile sixteenth-century medical opinions continued to plague cider up through its reversal in fortunes during the next century. Evelyn bemoaned that he was still forced to contend with old "superstitions" and "prejudices" against the drink, despite what he contended were many proofs showing it was better than wine in terms of both taste and health.[147] However, later in the same book edited by Evelyn, a separate writer admitted that a poorly made product could be quite injurious to one's health. Warning producers to allow time for freshly made cider to age properly, he recommended against the common practice of diluting cider with water to extend the drink. The anonymous author wrote, "New *Cider,* and all *diluted* and watred *Ciders,* are great *Enemies* to the *Teeth,* and cause violent *pains* in them, and *Rheums* in the *Head*."[148] These negative views on cider's medicinal qualities contrasted sharply with the newly emerging consensus after 1650 that cider was much healthier than beer or wine, and was particularly tied to longevity.

Ultimately, the end of the sixteenth century was a moment of depressed cider fortunes in England. However, this broad generalization simultaneously understates the precipitous decline that occurred in the east of the country, particularly in Kent and immediate areas around London, while not giving full credence to the fruits of renewal already beginning to blossom in the west. The next chapter will cover this regional distribution dynamic in full. The larger picture,

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[146] Gerard, *The Herball or Generall Historie of Plantes*, 1275.
[147] Evelyn, *Pomona*, 3.
[148] Anonymous, "*Another Account of Cider from a Person of great Experience,"* in *Pomona*, ed. Evelyn, 66.

however, is that the sixteenth century represented the last period until arguably the nineteenth century when cider was thought of primarily as a regional beverage. By the end of the seventeenth century, the success of cider improvers culminated in a reappraisal and repurposing of this disregarded drink into a national beverage that would become grist for epic poetry, political fights over the heart of Baconian improvement projects, and the toppling of a Prime Ministership.

CHAPTER TWO: Cider in the Agricultural Revolution: Reassessing an "Alternative Agriculture" Framework

In the long and complex historiography of the so-called British "Agricultural Revolution," cider has yet to find its rightful place among a familiar cast of improver crops, organizational developments, and technological advancements that historians of the period are familiar associating with eighteenth-century agricultural output increases. While we have internalized the significance of enclosure, field rotations, nitrogen-fixing fodder crops, innovative plowing equipment, and a host of other innovations, tracking "the timing, rate and spatial pattern of their adoption" has proved challenging to say the least.[1] The difficulties involved in compiling such sustained quantitative studies over large geographic areas are inherent to most, if not all improver efforts of the seventeenth century, but for reasons explored later this problem manifests itself conspicuously in the context of cider.

This chapter compiles the available qualitative and quantitative data to make the case that England saw rapid growth in cider production in the west country in the seventeenth century. The timeline of English cider expansion is shown to have begun as early as the late sixteenth century in some west-country areas, which poses significant problems for understanding cider in the context of Joan Thirsk's alternative agriculture framework. This chapter will demonstrate that other forces, likely socio-political concerns, must therefore be considered when assessing the historical trajectory of cider and its broader importance in England.

Agricultural commodity historians of this period are frequently forced to resort to anecdotal evidence to make qualitative claims that "may add only a little to our detailed

[1] Mark Overton, "The Diffusion of Agricultural Innovations in Early Modern England: Turnips and Clover in Norfolk and Suffolk, 1580-1740," *Transactions of the Institute of British Geographers* 10, no. 2 (1985): 205.

understanding" of the agricultural developments of the period.[2] Despite the disadvantages facing my efforts to trace cider's conjunctures in English economic history, an incorporation of the available evidence provides the necessary ballast for making broader claims on the political and social salience of the product, and can therefore not be dismissed. An unresolved tension also exists in the agricultural history field over how one should interpret information attesting to the development and spread of innovative practices and goods; the old disagreements over what constitutes an agricultural *revolution* might be exhausted, but it does matter whether one adopts G.E. Mingay's formulation that a sustained rise in output matters most, or if one follows the lead of Eric Kerridge in focusing on the initial wave of innovative farming methods.[3] In this context, the following section on regional distribution does better at tracing the presence or absence of cider in particular counties during the medieval period, and is only able to speak with increasing authority to *levels* in the late-medieval and early modern eras.

Cider's importance to the broader study of this era's agricultural expansion is demonstrated through both the extent of expansion as well as the adoption of new cidering methods. Since the basic methods have been covered in Chapter One, this present chapter will cover the full breadth of expansion. The economic and agricultural investigation here will then pave the way for assessing cider production in the political and social spheres in Chapter Three.

I. Regional distribution

Broadly speaking, the cider industry was more significant in England from the thirteenth through fifteenth centuries prior to an apparent decline occurring in the sixteenth century. While

[2] Stuart Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," in *Liquid Nourishment: Potable Foods and Stimulating Drinks,* ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993), 90-92.
[3] Eric Kerridge, "The Agricultural Revolution Reconsidered," *Agricultural History* 43, no. 4 (October 1969): 473-4; Overton, "Diffusion of Agricultural Innovations," 206.

from this perspective the cider boom in the mid-seventeenth century might appear to represent a rebirth of older traditions, the processes of decline and renewal were geographically unevenly distributed. The traditional centers of English cider production in Sussex, Hampshire, and especially Kent increasingly produced "table fruit" for the newly fashionable fresh fruit consumption market in London from the sixteenth century forward. In response, the geographical center of gravity of cider production moved steadily westward to areas farther away from London that found it more difficult to transport fresh produce before spoiling. Eventually, the west-country counties that became the most associated with cider production would be Cornwall, Devon, Somerset, Herefordshire, and Gloucestershire, and to a somewhat more limited extent Worcestershire and Dorset. Before the extension of navigable inland waterways opened new transport options, the beverage had to be shipped by sea to London. This trade in cider exploited well-travelled sea routes in the late seventeenth century, but this appears to have been done irregularly at best before then.[4]

The interval of time between the sixteenth-century decline in former cider areas that were turned over to table-fruit production, and the mid-seventeenth century takeoff in the west-country areas likely saw an absolute decline in cider production in England. Anecdotal evidence suggests this migration was a disjointed and fragmented process rather than a continuous evolution westward. Hints of the disconnect between production practices in the east and west of England may be found in the etymology of words used to describe the cider-making process. "Words like 'pomice' or 'pomace' for apple pulp and 'lees' for the residue in barrels are in common use in the west, suggesting the introduction of the craft from Normandy, [whereas] in East Anglia the equivalent words are 'chad'… and 'hills' for residue. In contrast to the West they

[4] Roger French, *The History and Virtues of Cyder* (New York: St. Martin's, 1982), 22, 28.

seem to have a Dutch or Flemish origin."[5] A westward shift in production probably entailed an absolute decline in overall English production during the last half of the sixteenth and first half of the seventeenth centuries rather than a shifting of equal levels of production from one region to another. This loose geographic summary omits key details, however, necessitating a further word on the regional distribution of cider in the early period.

It is possible to trace cider production relatively far back in nearly all regions of England that climactically support easy apple growth. Early modern shifting patterns of production do not imply the introduction of a completely new crop, but the relative development or decline of existing production. The wide dispersal of cider production, even if at low levels in some areas, should not be surprising; studies of early modern wine production have noted that in places where grape vines grew well, one could almost always find wine. Somewhat surprisingly, this ubiquity extended even to places with religious dictates against alcohol, including predominantly Muslim areas that tended to be fairly tolerant of it: "Religious precepts apart, the capacity to produce wine is a key factor, at least until recent times, in understanding the frequency of its consumption. One's conscience might act as a restraint to its appreciation, but wherever wine was produced, it was drunk."[6] The same logic appears to have held true for the apple-growing regions of Europe, where the presence of cultivated apple and pear orchards quite often translated into the presence of cider production. Considerable differentiation in volume did occur, however. The patterns that emerged in England in the mid-seventeenth century persisted roughly through the middle of the nineteenth century, when it continued to be the case that west-

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[5] Owen Thompson, *Notes Towards a History of Norfolk Cider* (Published by author, 2007), 3.

[6] Isabel Gonzalez Turmo, "Drinking: An Almost Silent Language," in *Drinking: Anthropological Approaches*, eds. Igor de Garine and Valerie de Garine (New York: Berghahn Books, 2001), 130.

country field workers would be provided with cider rations of roughly two pints per day, compared to the rest of country where this was done with beer.[7]

Though small-batch production was widespread through much of the southern half of England, the availability of cider to those not directly adjacent to the production of the beverage differed according to region, particularly in the case of urban centers. Formerly, cider had been distributed across long distances. Medieval records for the land holdings of Bec Abbey show cider sales ranging "as far north as Atherstone (Warwickshire), Bledlow (Buckinghamshire), and Weedon Beck (Northamptonshire)."[8] This wide availability diminished appreciably after cider's late-medieval reversals. By the middle of the seventeenth century, contemporaries remarked upon the new availability and reputation of cider in areas where they believed it to have been previously rare or unknown. Ralph Austen, writing to fellow ciderist and writer John Beale, beamed at this expansion, writing: "Cider is growne into greate request and its esteeme growes more and more, even in those places where they knew not what it was formerly."[9] In his social history of English drinking inns and taverns, historian Peter Clark noted the spread of cider's availability after the Restoration period, expanding out from the west country to also include major retailers in "Hampshire, Kent, Lincolnshire and Oxfordshire."[10] London's preexisting voracious demand for a wide assortment of fruit produce continued to be strong in the mid-seventeenth century.[11] While much of this appetite was satisfied from orchards in the home counties, increasingly table fruit was sourced from the west country and this trade was

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[7] John Rule, "Regional variations of food consumption amongst agricultural labourers," in *Agricultural Improvement: Medieval and Modern*, ed. Walter Michinton (Exeter: University of Exeter Press, 1981), 137.
[8] Richard Britnell, *Britain and Ireland 1050-1530: Economy and Society,* (Oxford: Oxford University Press, 2004), 9.
[9] Letter from Austen to Beale, 30 July 1658, HP XLV 2
[10] Clark, *English Alehouse*, 210-211.
[11] Alan Everitt, "The Marketing of Agricultural Produce," in *The Agrarian History of England and Wales: 1500-1640,* vol. IV, *1500-1640,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1967), 512.

intertwined with cider. By the end of the seventeenth century, Bristol, for example, shipped "over 1,200 hogshead of casked and bottled cider to London, as well as 4,900 bushels of apples" in 1699, though these numbers are bare minimums.[12] Contemporary estimates of cider shipped to London from the west country tended to be much higher, as in the case of Daniel Defoe's approximation for the immediate area surrounding Exeter, which he thought to have shipped between 10,000 and 20,000 hogsheads to London annually by 1720s.[13] Demand for cider in London appears to have increased exceptionally during the second half of the seventeenth century, with consistent shipments terminating in Southwark, London "where Coton's, Chamberlain's, and Beal's wharves were well-known landing points."[14] The city's outsized impact on cider was doubtless a function of its rapid demographic growth throughout the period of cider's ascent.[15]

In addition to changing appetites for fresh fruit that pushed cider production westward, the cooling climate following the Medieval Warm Period (c.900 to c.1250) known as the Little Ice Age appears to have pushed the bounds of cider production increasingly southward. The effects of climate on cider's range would have been particularly strong during the harsh, so-called "pessimums" that occurred in the sixteenth and seventeenth centuries. The most dramatic of these overlapped strikingly closely to the rise of west country cider: this lasted from the 1640s until the 1690s and was "the longest as well as the most severe episode of global cooling

[12] David Hussey, *Coastal and River Trade in Pre-Industrial England*: *Bristol and its Region 1680-1730* (Exeter: University of Exeter Press, 2000), 75.
[13] Giles V. Harrison, "The South-West: Dorset, Somerset, Devon, and Cornwall," in *The Agrarian History of England and Wales,* vol. V, *1640-1750,* part 1, *Regional Farming Systems*, ed. Joan Thirsk (Cambridge: Cambridge University Press, 1984), 382.
[14] French, *The History and Virtues of Cyder,* 28.
[15] E.A. Wrigley, "A Simple Model of London's Importance in Changing English Society and Economy 1650-1750," in *Past and Present*, no. 37 (July 1967): 44-70.

recorded in the entire Holocene Era."[16] Early medieval references to English cider are striking to the modern observer for frequently placing production in curiously northern latitudes where it later became exceptional. Noting the propensity of the early records in England's northern areas, Ian Hornsey has speculated that the later dominant west country production areas inherited their traditions from northern areas rather than the Normandy-adjacent home counties as most other historians have assumed: "Most of the earliest official reference to the drink, in fact, come to us from thirteenth and fourteenth-century documents from Norfolk and Yorkshire and, from these locations, cider-making made a broad sweep westwards."[17] Unfortunately, the relative dearth of early records attesting to cider in the northern counties of the west of England, particularly Worcestershire and Herefordshire, combined with the frequency of records one finds for the southern counties in the west of England prior to the sixteenth century, suggests this directional diffusion of cider-making practice is unlikely.

Among the earliest clear references to cider anywhere in England is an example from the far north, the grant of a "Pressurhus" in 1200 in the West Riding of Yorkshire, which makes clear that it was used for cider production ("molendina ad poma").[18] Similarly, thirteenth-century records from the Beauchamp family's manor in "Weleweton" (Welton, Lincolnshire) mandated one Robert Grubbe, who occupied a "ferling of land," to "help at [making] cider (*cizeram*)" as a condition of his velleinage.[19] Likewise, Norfolk-county references to orchards and cider casks exist as early as 1205 and 1281.[20] Though references to cider in these relatively northern counties

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[16] Geoffrey Parker, *Global Crisis: War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven: Yale University Press, 2013), xvii-xx.
[17] Ian S. Hornsey, *Alcohol and its Role in the Evolution of Human Society* (Cambridge: The Royal Society for Chemistry, 2012), 446-447.
[18] Staffordshire Record Office D948/3/80, "Grant re house called le Pressurhus at Loxley."
[19] H. C. Maxwell-Lyte, ed., "Two Registers Formerly Belonging to the Family of Beauchamp of Hatch," in *Somerset Record Society,* vol. 35, London: Butler and Tanner Ltd. 1920, 51.
[20] Thompson, *Notes Towards a History of Norfolk Cider*, 3.

are notable in the early period, production increasingly shifted southwards to such a degree that a 1745 reference to cider production in Neen Sollars, just across the Worcestershire border in Shropshire, was deemed to be "probably exceptional" by David Hey for being as far north as it was.[21]

Early references to cider are frequent enough in the home counties that it must have been a common medieval alcoholic beverage, similar to the northern counties. Port books from Winchelsea show cider was being assessed 2d per cask in 1267-1272, the same rate as one finds in nearby Southampton.[22] In 1296-7, the Earl of Cornwall sold it from his manors of Watlington (Oxfordshire), Princes Risborough (Buckinghamshire), and Isleworth (Middlesex).[23] Medieval economic historian Louis Salzman has compiled a large number of references for the thirteenth and fourteenth centuries in Sussex showing the sale of cider, the paying of wages for making the beverage, valuations of apple mills and presses, and extensive cider tithes. Some of the tithes, in particular, were of substantial value, "reaching 100S. in Easeborne, and as much as 10 marks (6lb 13S. 4d.) at Wisborough."[24] In combination, this evidence demonstrates the significant scale of medieval English cidermaking, which makes the subsequent sixteenth-century retreat all the more striking.

The home counties region continued to be an epicenter for English fruit production in later years, but it is clear from contemporary references that cider was no longer a substantial good in the region by the end of the sixteenth century. In the course of praising Kent's "tame and

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[21] David Hey, "The North-West Midlands: Derbyshire, Staffordshire, Cheshire, and Shropshire," in *The Agrarian History of England and Wales*, vol. V, *1640-1750*, part 1, *Regional Farming Systems*, ed. Joan Thirsk, 358-389. (Cambridge: Cambridge University Press, 1984), 157.

[22] Louis Francis Salzman, *English Trade in the Middle Ages* (Oxford: Clarendon Press, 1931), 355; Paul Studer, ed. and trans, *The Oak Book of Southampton of c. A.D. 1300*, vol. 2 (Southampton: Cox & Sharland, 1910), xviii, 3.

[23] Britnell, *Britain and Ireland 1050-1530*, 9.

[24] Louis Francis Salzman, *English Industries of the Middle Ages: Being an Introduction to the Industrial History of Medieval England* (Boston and New York: Houghton Mifflin Company, 1913), 197.

graffed" fruit orchards in 1597, John Gerard could not help but compare the region unfavorably to the area around Hereford, which, unlike Kent, "hath for tithe many hogsheads of Syder."[25] Likewise, writing in 1607, John Norden expressed admiration for Kentishmen as the "most apt and industrious, in planting Orchards with Pippins and Cherries," but lamented there was "not so much Syder made, for all the great abundance of fruite, as there might be but in the Inland." It is evident from Norden's writing that he did not necessarily expect his reader to know what cider was, as he felt compelled to describe the drink as being similar to white wine, perhaps illustrative of the product's decreasing presence around London in this period. Furthermore, the diminishment of cider production in Kent and the "south part" of Hertfordshire was recent enough, and apparently still proceeding, that Norden's surveyor character noted this fact. He tells his reader that the trees once used to produce cider were "now for the most part very ancient, and I do not see such a continuall inclination in the time present to continue or increase this benefite for the vse of posteritie."[26]

This disinclination towards cidermaking, with some notable exceptions such as the efforts by Richard Haines, apparently persisted in the home counties through the succeeding centuries. In 1798, agricultural writer William Marshall disapprovingly contrasted the "pyramidal spikes" used in Kent to beat apples into pulp to the well-ordered mills he saw in Herefordshire, and concluded that "little, it is probable, could have been learned from the incidental [cider-making] practice of Kent."[27] By the time that the United States' Bureau of Chemistry commissioned a comparative study of international cider practices in 1903, the author claimed that "though there

[25] John Gerard, *The Herball or Generall Historie of Plantes* (London: John Norton, 1597), 1275.
[26]John Norden, *The surueiors dialogue: very profitable for all men to peruse, but especially for all gentlemen, or any other farmar, or husbandman, that shall either haue occasion, or be willing to buy or sell lands*... (London: Printed by I. W[indet] for I. Busby, 1607), 208-9.
[27] William Marshall, *The Rural Economy of the Southern Counties: comprising Kent...,* vol. 1 (London: Printed for G. Nicol, 1798), 317-8.

is much small fruit grown in Kent, one of the famous fruit counties of England, very few orchards of any note were found, and cider making is almost unknown."[28] Though this observation was temporally far removed from the period of study here, the degree to which areas with formerly widespread cider attestation could lose such a tradition entirely emphasizes the point that cidermaking was by no means a stable regional presence in England historically.

II. The "Cider Counties": the West and Southwest

A vastly different trajectory emerged instead in the west of England. As with the northern and southeast counties, scattered early records attesting to cider's presence exist for much of the west country, though decidedly fewer than the north or southeast. The cultural consciousness of formerly robust production in the north and southeast faded by the seventeenth century to an extent that obscured the previous importance of cider in these areas. A similar mistake was made by writers regarding the west of England. Early modern writers tended to describe cider as a newly emerged product rather than recalling its earlier history in the west, and historians have at times followed their lead. Rosemary Robertson and Geoffrey Gilbert, for example, have suggested cider had not been made in quantity in Cornwall prior to the Elizabethan period, and William Hoskins has noted the same claim often being repeated for Devon.[29]

Nineteenth-century antiquarians Daniel Lysons and Samuel Lysons typified such sentiments in the case of Devon. In their account of the county's medieval past, they proposed that the lack of mention of orchards for the area in the Domesday survey, coupled with an

[28] William B. Alwood, *A study of cider making in France, Germany, and England with comments and comparisons on American work* (Washington, D.C.: U.S. Govt. Print. Off., 1903), 27.
[29] Rosemary Robertson and Geoffrey Gilbert, *Some Aspects of the Domestic Archaeology of Cornwall* (Truro: Cornwall Committee for Rescue Archaeology, 1979), 4; William George Hoskins, *Devon* (Tiverton: Devon Books, 1992), 94.

ostensible absence of "any incidental mention of them in records of the two or three centuries succeeding," supported the conclusion that cider was formerly unknown in the southwest. The Lysons brothers further claimed that William Harrison's 1577 description of cider suggested he expected the general reader would not have been familiar with the "by no means common liquor." Harrison's writings do imply cider may not have been as widely traded outside the areas of production as in the centuries either before or after. The Lysons noted he did not mention Devon or any of the surrounding counties in the southwest as an area of the commodity's production in his *Description of England*: "There is a kind of drink made of apples, which they call cider, or pomage, but that of peares is named pirrie, and both are ground and pressed in presses made for the nonce; certes these two are very common in Sussex, Kent, Worcester, and other steeds."[30] However, much evidence demonstrating widespread cider production took place in the west country, including Devon, has subsequently been unearthed to warrant a reappraisal.

In addition to the direct evidence of cider's presence in the west country from the thirteenth century onwards discussed below, conjectural clues exist that suggest even earlier adoption. Perry was the preferred variety of cider in the West Marches, and place names suggest it was important from an early date in that region.[31] Ann Hagen lists the town names of "*Periton* (1086), *Hardepiry* (1167), *Apeldresham* (c.1130), and *Pirton* (*Pyritune* in 972) in Worcestershire [which suggests] that fruit was grown in and around the Vale of Evesham in pre-Conquest days." Notes by contemporary travelers to the area also make clear that there were abundant fruit trees, which would have facilitated production.[32]

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[30] Daniel Lysons and Samuel Lysons, "Produce," in *Magna Britannia: Volume 6, Devonshire* (London: T. Cadell and W. Davies, 1822), cclxxvi-ccxcviii.

[31] Adam Smyth, ed., *A Pleasing Sinne: Drink and Conviviality in Seventeenth-Century England* (Rochester, NY: D.S. Brewer, 2004), xviii.

[32] Ann Hagen, *A Second Handbook of Anglo-Saxon Food and Drink: Production and Distribution* (Norfolk: Anglo-Saxon Books, 1995), 50.

References of cider in the west of England indicate that the product had firm standing in the area from an early date. By 1230 Jocelin, the Bishop of Bath secured a grant that mentioned cider presses, and later cider and apples are listed under the bishopric's revenues in 1242-3.[33] Cider was recorded as being sold at the castle in Taunton, Somerset sometime between 1245 and 1252, and it was likewise made by the Earl of Devon "on a considerable scale" at Exminster in 1285-6.[34] References to large orchards in the suburbs of Exeter appear in 1321 and 1355.[35] Curiously, the county that would later become the preeminent cider producer, Herefordshire, has comparatively fewer references. Once again, cider production has not exerted a regionally consistent presence absence in England, and its early absence in Herefordshire reinforces that point. Rebecca Roseff found only a single reference to orchards or fruit trees in Herefordshire prior to 1413, and a solitary mention of the beverage when the Countess of Pembroke is recorded drinking cider in southern Herefordshire in 1297. Roseff was unable to locate further cider records for the county until a burglary trial in 1400 where the defendant was accused of entering a home and drinking cider found within.[36] Regardless of its apparent rarity in Herefordshire, cider seems to have enjoyed a good reputation in the west country and adjacent areas prior to its decline, as was the case in other regions. In addition to the example of elite consumption by the Countess of Pembroke, Welsh language poems from the fourteenth and fifteenth centuries referenced cider in a positive light, "usually in the context of praising the lavish hospitality at

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[33] Philippa Legg, *So Merry Let Us Be: The Living Tradition of Somerset Cider* (Bridgwater: Somerset County Council Library Service, 1986), 1.
[34] T. J. Hunt, ed., *The Medieval Customs of The Manors of Taunton and Bradford on Tone*, Somerset Record Society, vol. LXVI, (Frome: Butler & Tanner LTD., 1962), lix-lx; Hoskins, *Devon*, 94.
[35] Maryanne Kowaleski, *Local markets and regional trade in medieval Exeter* (Cambridge: Cambridge University Press, 1995), 170.
[36] Rebecca Roseff, "The Origins of Orchards and Cider and Perry in England with partmicular reference to Cider," in *Landscape Archaeology and Ecology*, vol. 7, *Orchards and Groves; Their History, Ecology, Culture and Archaeology*, ed. Ian D Rotherham (Sheffield, U.K.: Wildtrack Publishing Ltd., 2008), 123, 125-6.

their patron's table."[37] High praise for cider implies that production was probably more widespread than the scant records indicate, as production of high-end product should be understood to have almost necessarily existed alongside lower-grade cider, even if one only accounts for the water-diluted second and third pressings of the pulp.

It is clear that substantial, if sometimes diffuse, production occurred in the medieval period in the west country. As in the southeast, areas that formerly made cider show decreasing mentions of the drink in the late-medieval period, even as improved record keeping should have facilitated easier observation. Production of cider would not have ceased entirely, of course. Sixteenth-century records from Tavistock Abbey in Devon continue to note that cider was produced in Plymstock and transported by river roughly 15 miles to Morwellham.[38] Small amounts of what was likely low-grade cider, generally unfit for trade, may be glimpsed in Somerset wills, as in the bequeathal by William Garlande of Dynynton of a hogshead of the drink in 1557.[39] Herefordshire, with its relatively late adoption of cider-making, was making cider in quantity by the sixteenth century, though it was hamstrung by its inability to trade beyond its immediate environs due to a lack of river transport.[40] Eventual Parliamentary acts to make navigable the Wye and Lugg would have to wait until 1662 and 1696 and overcome local apprehension about sending food stuffs through these arteries to be "spent and uttered" in exchange for expensive imports.[41] Despite the continued background presence of cider, the scale of both the descent and following upswing in the west country are readily apparent.

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[37] John Williams-Davies, *Cider Making in Wales* (Cardiff: National Museum of Wales, 1984), 2.
[38] William George Hoskins and Herbert Patrick Reginald Finberg, *Devonshire Studies* (Oxford: Alden Press, 1952), 263.
[39] F. W. Weaver, ed., *Somerset Medieval Wills, Third Series 1531-1558* (London: Harrison and Sons, 1905), 211.
[40] Joan Thirsk, "Farming Techniques," in *The Agrarian History of England and Wales,* vol. IV, *1500-1640,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1967), 196.
[41] Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," 100; Joan Thirsk, "Agricultural Policy: Public Debate and Legislation," in *The Agrarian History of England and* Wales, vol. V, *1640-1750*, part 2, *Agrarian Change,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1985), 345.

The intensification of cider production naturally tended to be recorded first in the form of an expansion in acreage for existing orcharding and the creation of new orchards. Observations of the fruitfulness of the west country from the late sixteenth and early seventeenth centuries are widespread, though tellingly these reports were usually not paired with references to cider production in the early period as would become ubiquitous later. Bruning lists an impressive number of sixteenth-century texts devoted to orcharding, though in this period "the treatises did not reckon cidermaking very highly among the arts of market gardening and orcharding."[42] Contemporary observer William Harrison, who passingly referred to cider as curiosity earlier in his work, was nonetheless unstinting in his praise of "our orchards, which were never furnished with so good fruit nor with such variety as at this present." So confident was Harrison in the quality and quantity of the period's orchards that he pronounced them superior to the mythological orchard of Hera and its golden apples:

> I am persuaded that, albeit the gardens of the Hesperides were in times past so greatly accounted of, because of their delicacy, yet, if it were possible to have such an equal judge as by certain knowledge of both were able to pronounce upon them, I doubt not but he would give the prize unto the gardens of our days, and generally over all Europe, in comparison of those times wherein the old exceeded.[43]

The account books of the manors of Norton St. Philip and Hinton Charterhouse from 1535-1691 are instructive in displaying this pattern in Somerset, a county with previously notable medieval cider records but little to show in the sixteenth century. Over the 150-year period for which records were kept, tithed items were assiduously listed for the manors and yet no cider appears until 1678, relatively late into the upswing of interest in cider.[44] Apples were tithed as early as

[42] Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordshire: Authors OnLine Ltd, 2012), 44.
[43] William Harrison, *Description of England*, ed. Georges Edelen (Washington, D.C.: Folger Shakespeare Library, [1577] 1968), 268, 270.
[44] Colin J. Brett, ed., *The Manors of Norton St. Philip and Hinton Charterhouse, 1535-1691* (Taunton: Somerset Record Society, 2007), 8, 304, 488, 503.

1634 at Norton St. Phillip and Hinton Charterhouse, and were regularly mentioned before that, beginning with the "Reeves' account" of a 1539 apple-tree orchard and continuing over 50 subsequent mentions of apples.[45] If cider was made between 1535 and 1634, it was produced in such small quantities on these estates as not to matter enough to be tithed.

Similar increases in orcharding have been noted in other areas of the west country. In Cornwall, for example, the number of orchards in St. Merryn's parish rose from "five to thirty-three between 1634 and 1685."[46] Cornish writer Richard Carew's remarks on the region's "fruitfulnesse," which allowed inhabitants to "reape a large benefit from their orchyards," suggest that this trend had been ongoing since the end of the sixteenth century at least.[47] To this we might add John Hooker's similarly timed notice of the "great abundance of all kinds of fruit in Devon, and to the careful management of orchards and apple gardens" in his unpublished *Synopsis Chorographical*.[48] Historian Giles Harrison compiled significant evidence attesting to the expansion of orchards during the seventeenth and eighteenth centuries in the southwest of England, and while this progression occurred unevenly at times, the "considerable" expansion in trade of apple-tree stocks, establishment of local nurseries, repurposing of arable land for fruit production, and available figures of cider sales all point to significantly increased orcharding activity in this region.[49] For Worcestershire, Herefordshire, Gloucestershire, and Shropshire, in particular, Thirsk has likewise noted land surveys and leases attested to frequent creation of "orchards newly made out of pasture."[50]

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[45] Brett, ed., *Manors*, 8, 304, 488, 503.
[46] Harrison, "The South-West," 383.
[47] Richard Carew, *The Survey of Cornwall* (London: Printed by S. S[tafford] for Iohn Iaggard, 1602), 117.
[48] John Hook, *Synopsis Chorographical of Devonshire*, unpublished c. 1600, as cited in: Hoskins, *Devon*. 94.
[49] Harrison, "The South-West," 382-4.
[50] Joan Thirsk, *Alternative Agriculture: A History from the Black Death to the Present* (Oxford: Oxford University Press, 1997), 46.

This pattern of intensification of orcharding in the late-sixteenth century, which was followed by an increased focus on cider making in the seventeenth, matches contemporary observations. It has been suggested elsewhere that the region was particularly well-situated for a renewal in part due to the preservation of the old monastic legacy of fruit-growing and cider production, both in terms of surviving expertise and physical infrastructure such as tithing barns that later housed many cider presses.[51] John Gerard's 1597 comments on the fruitfulness of Herefordshire and the availability of cider to poor laborers has been mentioned already. In 1630, Thomas Westcote was another voice in the chorus of writers singing the praises of the orchard and cider expansion underway in the west country, specifically Devon in this instance:

> They have of late years much enlarged their orchards and are very curious in planting and grafting all kinds of fruits, for all seasons, of which they make good use and profit, both for furnishing their own table as furnishing of the neighbour markets. But most especially for making of cider, a drink both pleasant and healthy; much desired of seamen for long southern voyages, as more fit to make beverage than beer.[52]

The industry in Devon became significant enough that thirty years later John Newburgh could offhandedly mention in his "Observations Concerning the Making and Preserving of Cider" that his neighbor's brother was a "great cider merchant" in Devon.[53]

Gloucestershire, Worcestershire, Devon, and Cornwall apparently excelled particularly in cider production according to Gervase Markham's observations in 1635. Markham's omission of Herefordshire on this list was considered to be an obvious mistake by historian William Curtler, and this does seem to be the case when considered alongside sources such as Gerard's *Herball* or

[51] Joan Thirsk, "The South-West Midlands: Warwickshire, Worcestershire, Gloucestershire, and Herefordshire," in *The Agrarian History of England and Wales,* vol. V, *1640-1750,* part 1, *Regional Farming Systems*, ed. Joan Thirsk (Cambridge: Cambridge University Press, 1984), 167-8; James Crowden, *Ciderland*, (Edinburgh: Birlinn Ltd., 2008), 2-3.
[52] Thomas Westcote, *A view of Devonshire in MDCXXX, with a pedigree of most of its gentry,* (1630) ed. George Oliver and Pitman Jones (Exeter: William Roberts, 1845), 45.
[53] John Newburgh, "Observations concerning the making, and preserving of cider," in *Pomona*, ed. Evelyn, 53.

Evelyn and Beale's references in *Pomona*. Beale noted with pride that Herefordshire had already eclipsed Kent in terms of reputation for cider by the time *Pomona* was written in 1664.[54] Proliferating mentions of cider in records from the adjacent areas in lowland eastern Wales, where "cider making… was essentially an extension of the Herefordshire tradition," help cement Herefordshire's place.[55] The absence of Somerset on Markham's list is one of several pieces of information that suggest that county may have been the last of what would become the core cider counties to boost production. The fact that Somerset later became such a significant center of cidermaking suggests adoption of the crop could have been swift. As different localities were exposed to the process, cider's fashionableness may have been as important as economic conditions or political arguments in favor of adoption.

Appraisal of cider as an option for elite consumers was also making a gradual comeback as early as the 1630s. None other than Charles I was served cider during visits to Hereford. Evelyn related that the "Beverage was esteemed by His late Majesty, and Court, and there referr'd to all the Gentry of the invironing Country" during "several Summers in the city" in the 1630s.[56] This experience would be duplicated when Charles was forced to flee to Hereford (under much less happy circumstances) following the Royalist defeat at the Battle of Naseby in 1645. Beale used the King's choice of cider over wine during this visit to illustrate the illustrious character of the drink:

> "I must not prescribe to other *Palats,* by asserting to what degree of *Perfection* good *Cider* may be raised, or to compare it with *VVines:* But when the late *King* (of blessed memory) came to *Hereford* in his distress, and such of the *Gentry* of *VVorcestershire* as were brought thither as *Prisoners*; both *King, Nobility,* and *Gentry,* did prefer it before the best *VVines* those parts afforded."[57]

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[54] John Beale, "General Advertisements Concerning Cider," in *Pomona*, ed. Evelyn, 29.
[55] William H. R. Curtler, *A Short History of English Agriculture* (Oxford: Clarendon Press, 1909), 136; Williams-Davies, *Cider Making in Wales*, 3-6.
[56] Evelyn, *Pomona*, 4.
[57] Beale, "General Advertisements Concerning Cider," 38.

Comparing cider favorably to wine was a common way to try to establish the reputation of the beverage. Evelyn related another story from the 1630s in his *Pomona* where a wager was placed between a certain "M. Taylor" of Hereford and an unnamed gentleman who preferred French wines. Inevitably the wine enthusiast was convinced of cider's inherent superiority after trying a draught made from the region's premium apple varietal, the Redstrake.[58]

County-level studies of probate inventories mirror these anecdotal accounts across much of the west-country area. Complementing manor-focused studies such as the Somerset example of Norton St. Phillip and Hinton Charterhouse previously detailed, Stuart Davies and Margaret Cash have compiled probate data for Worcestershire and Devon, respectively. Davies' investigation of records from the parishes of northwestern Worcestershire from 1540-1700 indicated a substantial increase in both fruit and cider availability. Of the area's sixteen surviving inventories from 1540-1570, none of these "contained any references to fruit, cider, or perry," and for 1600-1625 only two out of twenty-five contained such information. His third period of study from 1670-1700, suggested a completely changed scene as Davies found that fully half of the twenty surviving inventories explicitly mentioned orchard fruit, cider, or cider mills. Even allowing for the well-known defects of extrapolating too neatly from probate inventories, Davies concluded there was "plenty of evidence for a considerable expansion in the cider and perry trade in north-west Worcestershire between the 1620s and the 1670s."[59]

Margaret Cash's inventory of 266 surviving sixteenth and seventeenth-century Devon probate records demonstrate a similar trajectory. Of the over forty-five records that refer to apples, cider, or cider production equipment the later period is far more represented. Because her

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[58] Evelyn, *Pomona*, 3.
[59] Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," 88.

compilation neatly covered the sixteenth-century trough in cider-making activity as well as the period of renewal, the prevalence of beer and beer brewing is disproportionately higher than it would have been without the early period. Cash thus finds roughly double the number of inventories that mention beer brewing as compared to cider making overall. Households apparently tended to specialize in one or the other, as only a few wealthier "yeomen and gentlemen farmers made both beer and cider."[60] The lack of dual adoption by all but those with the greatest financial means suggests the decision to specialize in either beer or cider making was a decision with real economic ramifications. Farmers of modest means would not have been making cider as a mere hobby, but as part of a conscious long-term decision between two available methods to provide their family and laborers with alcoholic beverage. As cider became a beverage with national reach in the seventeenth century, these decisions became increasingly inflected with non-economic concerns as well.

Areas with access to large ports, particularly the areas surrounding Bristol and Exeter, appear to have fared well in this initial stage of recovery and expansion, though some measure of this impression may be due to the availability of port books as source bases able to capture cider's presence. Davies has noted "extremely problematical" issues facing quantification efforts through such records, and my own work (see Chapter Four) attests to the specific problems cider tax evasion presents to any attempt to grasp the extent of the cider trade. Even accounting for the deficiencies, a clear upsurge of the beverage being transported down the River Severn in Gloucestershire to Bristol is noticeable. Whereas Gloucester's port books show that cider was rarely transported downriver prior to the Civil War, and "that thirty-two hogsheads of cider and perry were carried in 1666," one must acknowledge the steep increase detailed afterwards in

[60] Margaret Cash (ed.), *Devon Inventories* (Torquay: Devon and Cornwall Record Society, 1966), xx.

Stuart Davies' study on the matter: in the subsequent period, Davies finds "on average between 1,300 and 2,000 hogsheads per year for sampled years between 1679 and 1728," making it "difficult to escape the conclusion that a major expansion of the cider trade occurred in the late 1660s and 1670s."[61]

The increases in cider production noted above correspond loosely, if imperfectly at times, to the heyday of intellectual interest in cider back in London. It can confidently be stated that the mid-seventeenth century broadly saw increases in the west country that continued to gain momentum through the peak of metropolitan interest in the 1660s and 70s and continued on into the eighteenth century. The picture offered through admittedly problematic excise records suggests that cider did not reach its production zenith as a percentage of alcohol taxed in the country until around 1700, where it afterwards plateaued for the better part of a century.[62]

These changes were increasingly remarked upon by visitors to the west country in ways that show the maturation of the cider trade. At the turn of the eighteenth century, travel writer Celia Fiennes distinguished between the higher quality cider production in Herefordshire, much of it bound for export from Bristol, and the mass-produced variety made in "great quantities" but without the "best sort of fruit" in Somerset.[63] Swedish traveler Reinhold Angerstein noted a similar dynamic in Gloucestershire with its "abundance of cider" that was "partly consumed here and partly sent to Bristol for export to foreign countries."[64] These large trends are captured in miniature through documentation left by farmers who recorded the improvement of their

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[61] Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," 92.
[62] John Chartres, "No English Calvados? English Distillers and the Cider Industry in the Seventeenth and Eighteenth Centuries," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 318-19.
[63] Mark Brayshay, "The Development of Topographical Writing in the South West," in *Topographical Writers in South-West England*. ed. Mark Brayshay, (Exeter: University of Exeter Press, 1996), 21.
[64] Reinhold Rücker Angerstein, *Illustrated Travel Diary, 1753-1755: Industry in England and Wales from a Swedish Perspective,* trans. Torsten Berg and Peter Berg (London: Cromwell Press, 2001), 350.

holdings. Engaging in cider production for the first time, farmer John Holder of Gloucestershire attested to his "setting up a cyder mill and presses" and detailed his increased emphasis on fruit and cider production.[65]

The end result of the seventeenth-century upsurge in cider production was a distinct west country focus on cider compared to the rest of the country that held true through the eighteenth century. The degree to which the region departed from other areas in England may be illustrated through tax records, though these figures tend to severely undercount cider relative to other alcoholic beverages for reasons discussed below. For the years 1754-1761, seven "cider counties" paid 14.65% of the nation's land tax, which in this era may be taken for an approximation of the region's share of the nation's general wealth. However, these cider counties only paid 7.77% of its malt tax, which did not include cider, implying a significant underpayment in alcohol taxes. After the imposition of a new excise in 1763 with significant enforcement mechanisms designed to achieve parity between beer and cider, the percentage of combined excise on malt and cider in the region rose to 11.07%. The continued presence of a gap between the amounts collected in land taxes and alcohol taxes for the region indicate that cider tax evasion continued even after the new excise, and also help to demonstrate the extent to which the west country specialized in cider over beer production.[66]

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[65] Herbert Patrick Reginald Finberg, "Three Studies in Family History: Holder of Taynton," in *Gloucestershire Studies*, ed. Herbert Patrick Reginald Finberg, (Leicester: Leicester University Press, 1957) 176-7.

[66] Patrick T. M. Woodland, "The Cider Excise, 1763-66" (D.Phil. diss., St. Peter's College, Oxford, 1982), 19. In addition to the six English cider counties typically covered, Woodland includes Monmouth County, Wales in his figures.

III. Seventeenth-Century Expansion: Assessing Cider through Thirsk's Alternative-Agriculture Framework

When contemplating the abrupt expansion of cider production observable in seventeenth-century England, the obvious questions arise of why it occurred when it did, and what other developments were necessary to precipitate this change. An older strain of revisionist argument tends to answer such questions in impersonal terms. Thus, the revisionist line for the breakdown of order that resulted in the English Civil War favored large structural forces, such as intractable religious division, the inability of older forms of government to collect revenues, and, as advanced in works like Geoffrey Parker's *Global Crisis*, even cold climate. The post-revisionist turn tends to privilege political, or even *ideological* contestation for why these divisions broke into the open.[67] Chapter Three largely focuses on these political divisions and the way in which cider was both an object of political contestation and a vehicle through which we can glimpse those cleavages. In the remainder of this current chapter, I argue that another large structural force often used to explain the emergence of alternative crops, the price of staple agricultural goods, supported cider's rise, but that it played a secondary role to the intellectual accelerants detailed in Chapter Three. Ultimately, the timing of the dramatic increase in orchard production predates the period of low grain and meat prices that held sway in England from 1650-1750, and cider emerged dramatically in mid-century England as a conscious choice supported by political concerns. Bifurcating the major categories of cider produced into two categories helps illustrate where economic and intellectual currents had the largest impact; economic inducements to growing cider were of primary importance for cider made for local, on-site consumption, while

[67] William M. Cavert, "Winter and discontent in early modern England," in *Governing the Environment in the Early Modern World: Theory and Practice,* ed. Sara Miglietti and John Morgan (London: Routledge, 2017), 116-7.

the rapid expansion of the nationalized product traded and consumed far from production sites was particularly impacted by non-economic rationale.

An on-going debate exists in English agricultural history over the salience of crop prices, the degree to which different-sized producers were attuned to such prices, and the relationship of these factors to the seemingly slow start of the British Agricultural Revolution. An increase in production efficiency helped undergird low prices: in the middle ages the yield ratios of grain harvested to sown was 4:1, but "in the early seventeenth century they stood at 6:1 and by the second half of the eighteenth century were nearly 10:1."[68] This revolution has appeared curiously late in coming from the modern perspective, which finds the traditional considerations associated with increases in eighteenth-century agricultural output were already present by the mid-seventeenth century at the latest. These factors included technological achievements, organizational capacity, and the presence of particular crops, all existing within the framework of a marketized national economy.

The presence or absence of these features was traditionally extrapolated into large national trends in agriculture based on small numbers of local studies. Given that experiences differed so widely across England, historians on both sides of major fault lines traditionally had much evidence on hand to rebuke the other side. The current state of the great agricultural debates has cooled considerably, tending to instead favor arguments accentuating complexity rather than large forces, while still noting the similarities between the state of agriculture in the early period to what came later during a supposed "revolution."[69]

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[68] Jan De Vries, *The Economy of Europe in an Age of Crisis, 1600-1750* (Cambridge: Cambridge University Press 1976), 35-36.

[69] Patricia Croot, *The World of the Small Farmer: Tenure, profit and politics in the early modern Somerset Levels* (Hatfield: University of Hertfordshire Press, 2017), 1-4. "Subsequent research, especially the detailed work that has been carried out in the last few decades on medieval cultivators and landholders, as well as on their relationships with the urban economy, has shown us a far more complex and interesting society… What we are looking at in the

In some ways, the field seems not to have moved far from Charles Webster's observation in 1975 that "most of the improvements which are customarily thought to have occurred in the eighteenth century were introduced at an earlier date. Indeed… the germs of the agricultural revolution may be detected as early as 1560; thereafter between 1580 and 1656 the process of change appears to have become greatly accelerated."[70] How one thinks about the earlier period's "acceleration" that did not rise to the level of a "revolution" is clarified through the example of cider in seventeenth-century England. Cider illustrates how the presence of the factors traditionally highlighted in the later Agricultural Revolution did indeed elicit a boom, but a type of *alternative* boom that was separate from what came later. The productive energies of English agriculture, including its capital, technology, and intellectual efforts, supported a dramatic increase in alternative agricultural foodstuffs; this was supported in part by prevailing low staple-good prices that would delay a similar takeoff in traditional commodities until the following century.

Joan Thirsk's formulation of this roughly hundred-year cycle as one of *alternative agriculture* emphasizes that low prices of traditional farm products would have spurred efforts into a long list of alternative goods, including cider.[71] And indeed, low value of cereals and meat would have helped to sustain and encourage cider production in the second half of the seventeenth century by offering comparatively better financial returns than during years with high grain prices. The idea that an extended period of decreased prices for a staple good might facilitate the development of different alcoholic beverages has precedent in other contexts. An

earlier period is the development of a more widespread commercial economy in farming, industry and trade, ready to take advantage of technical changes..."

[70] Charles Webster, *The Great Instauration: Science, Medicine, and Reform 1626-1660* (New York: Holmes & Meier Publishers, 1976), 468-9.

[71] Thirsk, *Alternative Agriculture*, 56.

earlier episode of this process may be found in fourteenth-century Holland, for example. In this case, historian Richard Unger has argued a causal link to exist between the Black Plague and the emergence of new forms of beer. In his telling, the period's decreased grain prices and increased average disposable incomes expedited a transition from gruit-based beer to a product made from hops.[72]

However, cider was not increasingly successful after 1650 merely because farmers had the capacity to produce it and strained under low staple-good prices. The case of apple brandy made from cider distillate, which was a major economic concern across the English Channel in Normandy but failed to become a significant article in England, is illustrative of how political inducements or inhibiting factors could play a large role in shaping outcomes. Despite similar capacities for production, climactic environments, and grain prices in northwest France and western England, precious little cider brandy was made in England, whereas calvados expanded to become a dynamic industry in Normandy.[73] Grain prices in France roughly mirrored those in England, with a relative peak in the second half of the sixteenth and first half of the seventeenth century, and then entering a long period of average decline that was not undone until the middle of the eighteenth century.[74] John Chartres has ably shown that the lack of cider brandy in England was primarily a political choice, where alternative spirit bases, mostly corn and molasses, were supported at the expense of cider as a distillate. Political support in the form of bounties, tax-regime choices, and competition with France promoted West Indian molasses and domestic grain as the base materials that fueled gin's spectacular growth in early eighteenth-

[72] Richard W. Unger, *A History of Brewing in Holland 900-1900* (Leiden: Brill, 2001), 60.
[73] Chartres, "No English Calvados?" 314.
[74] Abbott Payson Usher, "The General Course of Wheat Prices in France: 1350-1788," *The Review of Economics and Statistics* 12, no. 4 (November 1930): 159-169, 162.

century England rather than the unsuitability of cider. Thus, the growth of the cider trade to provide a fermented but not a distilled product reflected political priorities.

Neither prices nor politics suffice in explaining the turn to orchards. The timing of cider's takeoff, and especially the earlier move towards increased orcharding in England, suggests problems with the alternative-agriculture model that emphasizes staple-good prices. The increase in orcharding occurred too early for low grain prices to have been helpful, and one sees this problem reflected in the timing of the emergence or reemergence of other "alternative" crops of the era. Writing in 1577, William Harrison remarked on a list of newly important crops that bore striking resemblance to those highlighted by Thirsk as exemplars of alternative agriculture. Thirsk emphasized rapeseed, woad, hops, madder, mulberries for silk, safflower, weld, and vines as emblematic of the new agriculture turn, and Harrison covered nearly all of these as well.[75] Harrison noted hops' cycle of fading from prominence in English agriculture and recent reemergence in his era: "Hops in time past were plentiful in this land. Afterwards also their maintenance did cease. And now, being revived, where are any better to be found?" This same dynamic obtained in the case of madder: "Madder hath grown abundantly in this island, but of long time neglected, and now a little revived, and offereth itself to prove no small benefit unto our country."[76] Harrison relayed similar comments for woad, rapeseed, and flax, surmising their decline was due to "negligence" and "carelessness" rather than anything to do with England's soil.[77]

The timing of the reemergence of these crops was clearly not predicated on the depressed staple-good prices that dominated after 1650. Furthermore, to the extent that low grain prices did

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[75] Thirsk, *Alternative Agriculture*, 72-139.
[76] Harrison, *Description of England*, 265.
[77] Harrison, *Description of England*, 437-9.

begin to impact cider's economic standing, the pressures these prices exerted would have produced ambiguous results due to the peculiarities of cider as a commodity. On the one hand, low grain prices would have facilitated specialization in alternative crops by freeing labor resources otherwise needed to produce foodstuffs necessary for mere subsistence. Robert Brenner has called attention to a division between the types of agricultural goods whose success was predicated on a "greater *efficiency* of a given unit of labour input," as in the case of grain in the second half of the eighteenth century, and the more specialized types of produce that realized "increased yields through the *intensification* of labour input" [italics added]. Essentially, cider would have benefited from greater amounts of labor being directed onto smaller areas, and, indeed, orchards typically consumed a small amount of acreage compared to the space used by other crops on farms where it was produced. Thus, low grain prices would have made increased cider production possible in the sense that the excess labor supply necessary for labor intensification was "predicated upon the growth of basic food (grain) production."[78]

On the other hand, the majority of cider most directly competed against grain-based alcohol for consumers. Although high-end producers promoted the drink as a replacement for wine, the overwhelming bulk of cider served as a stand-in for beer and to a lesser extent distilled, grain-based spirits. The low price of grain would have made malted beverages more attractive, especially for landowners who produced cider primarily as a form of payment to their laborers. Although these landlords would have been pressured to produce a tolerably palatable product—and indeed there are accounts of farmers having easier or harder times recruiting workers based on the reputation of their cider—the cider being offered to such workers was generally of such poor quality that the main attraction of its production would have been its affordability.

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[78] Robert Brenner, "Agrarian Class Structure and Economic Development in Pre-Industrial Europe," *Past and Present*, no. 70 (February 1976): 64.

Therefore, the inducement to farmers to cultivate cider as an alternative to producing depressed staple goods would have been offset somewhat by cider's relatively higher cost in terms of price by unit of alcohol in years when beer was produced more cheaply.

As one would expect from cheap grain prices, high-strength beer styles such as stouts and porters as well as grain-based distilled products, notably gin, became popular in the late seventeenth and early eighteenth centuries.[79] One can see the long-term dynamic of base-material prices driving consumption patterns more clearly in the form of short-term fluctuations caused by inclement weather. Because apple and pear harvests were prone to boom and bust cycles of "bumper" crops and "misses" caused by early frosts or unseasonably warm winters, cider prices were notably volatile from year to year, pushing consumers between beer and cider depending on price.[80] Grain prices fluctuated as well, of course, even within the context of the longer hundred-year trough from 1650-1750, and when both fruit and grain prices were high people consumed less alcohol altogether.[81] Contemporary observers noted the wild swings in cider prices; for example, one of the largest providers of cider to the London market, Richard Haines, remarked on the doubling of price of "simple cider" from 1682 to 1683 from 10s per hogshead to 20s.[82] In order for producers to survive this price inconstancy he advised that excess cider be distilled in bumper years to save for times when it was more dear, the distilled version

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[79] Clark, *English Alehouse*, 183, 211.

[80] Apples are particularly susceptible to inclement weather in the early stages when the blossom needs to be pollinated (apples are not a self-pollinating species): "The dangers are that an unseasonably warm winter can make blossoms bloom early, before there are any insects flying, while a late spring frost could kill the bloom. Either can mean the insects won't come." Pete Brown, *The Apple Orchard: The Story of Our Most English Fruit* (Penguin Books, 2016), 39.

[81] Eric Lionel Jones, *Seasons and Prices: The Role of the Weather in English Agricultural History* (London: George Allen & Unwin Ltd., 1964), 22.

[82] Haines, Richard, *Aphorisms upon the new way of improving cyder, or making cyder-royal lately discovered for the good of those kingdoms and nations that are beholden to others, and pay dear for wine...: to which are added, certain expedients concerning raising and planting of apple-trees, gooseberry-trees, &c. with respect to cheapness, expedition, certain growing, and fruitfulness, beyond what hath hitherto been yet made known* (London: Printed by George Larkin for the author, 1684), 11.

having far better keeping properties. Even more extreme examples of low cider prices during bumper years may be found in contemporary press accounts, as when the *Bristol Journal* reported a "great plenty of apples" in Cornwall had "rendered cyder at so low price as five shillings per hogshead."[83]

Thirsk's alternative agriculture framework embraces much of the ambiguity resulting from divergent pressures, and she pays notice to a broader set of concerns than mere agricultural prices alone. For instance, she argues that famine years in the early seventeenth century saw increased state support for alternative crops; private gardening of fruits and vegetables was promoted by local authorities in response to shortages, which accelerated a turn towards broader adoption of orcharding prior to low grain prices.[84] To be sure, the economic conditions prevailing after 1650 would have bolstered cider's general prospects on average, though the timing of its takeoff suggests that intellectual preoccupations more significantly impacted how, where, and when cider emerged, particularly in the early period *before low staple-good prices emerged*.

Thirsk marked the importance of political, social, and technological developments in her analysis of the prior period's turn towards alternative agricultural goods, even if her emphasis on economic conditions unfortunately muddles the timing of their adoption. In the case of alternative agriculture crops in England, historians have noted the 1650s was a political and intellectual turning point. The adoption of new improver crops began to be increasingly coordinated in an organized fashion, in large part through the efforts of Samuel Hartlib.[85] "Improvement" efforts prior to 1640 had faced consistent hostility from elites, who were often

[83] *Bristol Journal*, October 21, 1762, 1.
[84] Joan Thirsk, *Food in early modern England: phases, fads, fashions 1500-1760*, (London: Hambledon Continuum, 2007), 34-35.
[85] Thirsk, *Alternative Agriculture*, 43.

"conscious that private enterprise might corrupt civic virtue." Improvers were thus compelled to overtly demonstrate how their projects would lead to the common good and "not simply to the private profit of those involved in it."[86] Cider promotion was especially successful under such constraints because of the long and malleable list of benefits the commodity was argued to produce.

This interplay between economic conditions and intellectual concerns had a cyclical history for Thirsk. Her work identified three periods of alternative agriculture in England "set between periods of mainstream farming." The first was after the Black Death from 1350-1500 with the second being the object of this current study from 1650-1750, "though the way was being paved for it from at least 1590 if not earlier." The third was from 1879-1939 and Thirsk argued today's society entered into a current, fourth state of alternative agriculture beginning in the 1990s.[87] She contended that the prevailing current conditions most-closely paralleled the dynamics present from 1650-1750 out of the three historical periods she assessed. Indeed, cereal and meat prices today are low by historical standards, and many of the considerations that made cider attractive in the early modern period are present again today. Contemporary cider writers Annie Proulx and Lew Nichols link the modern resurgence of cider to increased apple yields, effective advertising campaigns, and the development of a fashionable taste for cider, all factors present in the earlier period explored below. Finally, a type of relationship with local land, expressed in more overtly religious terms by earlier cider improvers, is today echoed in "back-to-the-land," slow foods, and organic farming movements.[88]

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[86] Paul Slack, *The Invention of Improvement: Information and Material Progress in Seventeenth-Century England* (Oxford: Oxford University Press, 2015), 53.
[87] Thirsk, *Alternative Agriculture*, 3.
[88] Annie Proulx and Lew Nichols, *Cider: Sweet and Hard. Making it, using it, and enjoying it* (Charlotte, V.T.: Garden Way Publishing, 1980), 1.

In addition to a more-congenial environment fostered by the elite embrace of a set of preferred alternative crops, cider benefited from a confluence of several key developments by mid-seventeenth century. Major advances were made in a relatively short span of years in terms of both cider-production technology and areas of scientific understanding directly useful to making the beverage: tougher glass for bottling, new corks, cheaper and portable mills, better cider-fruit varietals, greater understanding of grafting methods, increased attention to soil and climate, and the favoring of an experiment-based approach all were important. Growing commercial sophistication surrounding cider also mattered: this included the proliferation of nurseries, effective marketing of cider based on varietal and region, changing metropolitan tastes that favored sweeter beverages, the opening of new internal trade routes, the production of practical cider manuals that served as guides to would-be producers, the attraction of orchards as a safe-haven investment following the disruptive Civil Wars, and the ability to supply London's market with sparkling cider (that is, cider that had undergone secondary fermentation), which could keep long enough to survive the seaborne voyage.[89] Finally, the geopolitical situation continuously intervened to disrupt Continental wine imports during the seventeenth century in a way that redounded to the benefit of its nearest domestic competitor.[90] Even in times when the wine trade was not restricted, mercantilist impulses among cider promoters helped elevate the home-grown "English wine" into something approaching a national drink. In aggregate, these factors amounted to a powerful inducement to those considering whether to produce cider. However, the economic conditions of this period also influenced cider's prospects both before and after 1650, and it is to these conditions we now turn.

[89] Clark, *English Alehouse*, 211.
[90] Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century," 94-102.

IV. Economic Trends of the English Countryside, 1550-1650

When cereal and meat prices are depressed to the point that farmers must consider converting their production to new crops and livestock, such transitions from one agricultural good to another might seem to be an obvious response to a modern observer. However, this would have been a terribly fraught decision in a pre-modern context with imperfect price information. Thirsk has labeled these transitions "disjunctures" to capture the painful effect they would have had for farmers.[91] In many cases producers were compelled to abandon one set of crops that their family had farmed for generations for a new, untested good—a decision doubtless accompanied by a great deal of anxiety. In this all-important moment, where a producer of traditional foodstuffs felt it necessary to diversify into alternative crops, why did so many choose to turn to cider in seventeenth century England? In part, the accompanying economic conditions of the period supported such a choice after 1650, even if a shift towards cider already appears to have been underway prior to this.

The seventeenth-century cider boom emerged in the context of a rapidly changing agrarian market. England underwent a long period of marketization in the late-sixteenth and seventeenth centuries, driven in part by the rapidly expanding importance of London. Increasingly, agricultural producers were not required to sell their grain locally, and much of the excess was efficiently reorganized to feed London.[92] Though local justices of the peace formerly used long-standing statutes to force local grain sales, these were steadily less often enforced until being finally done away with completely through the Grain Act of 1663. By 1672, grain was in such over-abundance that bounties were being paid for overseas exports in order to offset

[91] Thirsk, *Alternative Agriculture*, 2-3.
[92] De Vries, *Economy of Europe in an Age of Crisis*, 163-4.

flagging domestic demand.[93] In the period prior to 1650, the direction of agricultural goods tended to go the other direction due to the generally higher labor costs that prevailed in England as compared to those on the Continent. Though fruit was certainly imported as part of this flow of goods, typically orchard produce could not be stored and transported for long before spoilage set in, allowing late-sixteenth-century fruit production to thrive relatively unmolested by Continental competitors.[94]

The degree to which London's growth wrought changes upon an increasingly marketized countryside during this period depends in part on how the peasant economy was ordered in the first place. Whereas Mark Overton has argued that small farmers were primarily subsistence-oriented, unresponsive to the price changes in their production choices, and wedded to local rather than a larger national market, Patricia Croot has convincingly demonstrated such peasants were noticeably attuned to broader price fluctuations and economically rational. In Croot's telling, the primary requirement the previous century lacked was not that of a particular attitude towards subsistence or the market, but, rather, lower-order farmers "required opportunity" in the form of "demand for their products... from a rising population [which would make] increased output worthwhile."[95] This rising population materialized spectacularly in the sixteenth and seventeenth centuries, along a reallocation of time towards wage work in the pursuit of more consumer goods.[96]

The magnitude of England's population growth during this period certainly stimulated increases in production. The unequal distribution of this population increase likely expedited the

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[93] Thirsk, *Alternative Agriculture*, 26.

[94] Joan Thirsk, "Agricultural Policy: Public Debate and Legislation," in *The Agrarian History of England and* Wales, vol. V, *1640-1750*, part 2, *Agrarian Change,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1985), 343.

[95] Croot, *The World of the Small Farmer,* 5-8.

[96] See for instance: Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge: Cambridge University Press, 2012), passim.

integration of local exchanges into a larger national market, with urban centers increasingly exerting an effect on larger areas of surrounding agricultural production. England's population increased two-and-a-half-fold over one hundred and fifty years, arguably making it the "single most important social development of the period."[97]

This long-term population development coincided with halting, yet evident social and physical transformation of the landscape in the form of enclosure. Similar to statutes that formerly mandated local sales of grain, proscriptions against enclosure were still enforced in the form of fines against landowners on the eve of the Civil Wars, though this was becoming rarer.[98] The dislocation and disruption weakened the ability of marginal farmers to oppose enclosure effectively, to the extent that opposition to the process was largely "removed" by the start of the alternative agriculture cycle.[99] An increased prevalence of enclosing practices facilitated cider's rise, as fruit trees were commonly used to construct hedges and delineate boundaries.

Thus, the cider boom came at a moment where the English agricultural scene had been "irreversibly altered," being "deeply penetrated by forces which both weakened their localism and gave a sharper edge to their patterns of social stratification."[100] The combined effect of greater marketization, increasing population, and a reordering of the spatial rural landscape meant that shocks to grain prices were likely to have a much greater impact than they might have had in a comparatively stable environment. These shocks materialized forcefully in the first half of the seventeenth century in terms of instability, and after 1650 in the form of a long, depressed trough in prices.

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[97] Andrew McRae, *God Speed the Plough: The Representation of Agrarian England, 1500-1660* (Cambridge: Cambridge University Press, 1996), 12.
[98] Joan Thirsk, "Agrarian Problems and the English Revolution," in *Town and Countryside in the English Revolution*, ed. R.C. Richardson (Manchester, U.K.: Manchester University Press, 1992), 170
[99] De Vries, *Economy of Europe in an Age of Crisis*, 76-77.
[100] Keith Wrightson, *English society, 1580-1680* (New Brunswick, N.J.: Rutgers University Press, 1982), 13.

The first half of the seventeenth century was marked by wild swings in agricultural prices as harvests failed or proved bountiful, resulting in corresponding lurches in state policy.[101] Unsettled conditions in England were mirrored on the Continent, which similarly fluctuated wildly in terms of agricultural prospects, weighed down by deflation, destabilization from the Thirty Years' War, failed harvests, and large-scale spread of disease, thus reducing the effectiveness of imports to offset domestic crises.[102] Charles Webster and economic historian B. E. Supple concluded that "the third, fourth and fifth decades of the seventeenth century witnessed extreme hardship in England, and were probably among the most terrible years through which the country has ever passed."[103] The point to be emphasized here is that the underlying economic reality of the rural sphere prior to 1650 was dire, and this was especially true during the "calamitous" final few years in the 1640s after successive harvest failures.[104]

V. Quantifying the English Cider Boom

A wide range of problems emerge when trying to quantify cider production, as Chapter Four will show in greater detail. Despite partial and flawed data, it is still possible to apprehend large trends and changes in absolute production, even if we readily acknowledge the figures to be only fractions of the whole.[105] Three broad categories of evidence are particularly useful in capturing quantitative data on early modern cider: account books, probate records, and tax custom figures. Account books, while rich sources for individual farms and manors, have a high

[101] Thirsk, *Alternative Agriculture*, 24.
[102] Webster, *Great Instauration*, 345.
[103] Webster, *Great Instauration*, 466; Barry E. Supple, *Commercial Crisis and Change in England 1600-1642* (Cambridge: Cambridge University Press, 1959), 99-112.
[104] Steve Hindle, "Dearth and the English revolution: the harvest crisis of 1647–50," *Economic History Review* 61 (2008): 64–98; Thirsk, "Agrarian Problems," 67.
[105] Unger, *A History of Brewing in Holland*, 55.

degree of irregularity between compilers, were never as widespread as the other two categories, and are better at providing anecdotal evidence or claims about smaller localities rather than at the county or regional level. Probate inventories and tax records have major limitations in general, but also carry specific drawbacks in relation to cider that changed over time as cider became a more important commercial item, counter-intuitively making these records useful in showing the rise of a marketized approach towards the good, even if that information ultimately is less useful for quantitative ends.

The most robust data set showing changes in cider production over time were excise records. Stretching from 1684-1764, these figures capture the volume of cider that was assessed excise tax, the rate of which changed often.[106] For comparison's sake, cider excised for sale, which did not account for the massive consumption and production of the product geared towards farm wages paid in cider, was higher than wine in excised gallons-per-year averaged over decades in all but two decades from 1684-1770.[107] It would have been much easier to excise wine than cider since wine was almost entirely an imported good, even though smuggling of wine was rife. For the vast majority of this period, cider produced and consumed on-site was free from excise, and even during periods when this was not the case tax evasion was rampant. With good reason, Peter Mathias notes a "Customs House oath" was a common euphemism for a lie.[108] For this reason we should not only wonder at the great untaxed portion of cider produced and consumed on-site, but also the portion that passed through customs checks severely undercounted.

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[106] See Chapter 4, VI. Cider Excise Tax Rates over Time.VI. Cider Excise Tax Rates over Time
[107] Chartres, "No English Calvados?" 318.
[108] Peter Mathias, *Brewing Industry in England 1700-1830*, (Cambridge: Cambridge University Press, 1959), 341.

Three major features are apparent from the excise figures in *Figure 2.1*. First is the presence of large peaks and valleys that show the high degree of volatility present in cider production from year-to-year. Major "hit" bumper crops and "miss" years were a well-known component of cidermaking, based in large part on the unpredictability of weather-induced fluctuations in the apple and pear harvest. However, the instability represented here is exaggerated compared to what the probable true production levels of cider would otherwise have demonstrated. Excise figures likely accounted for no more than one-quarter to one- fifth of total production, and the non-excised proportion would have been less likely to rise and fall in such

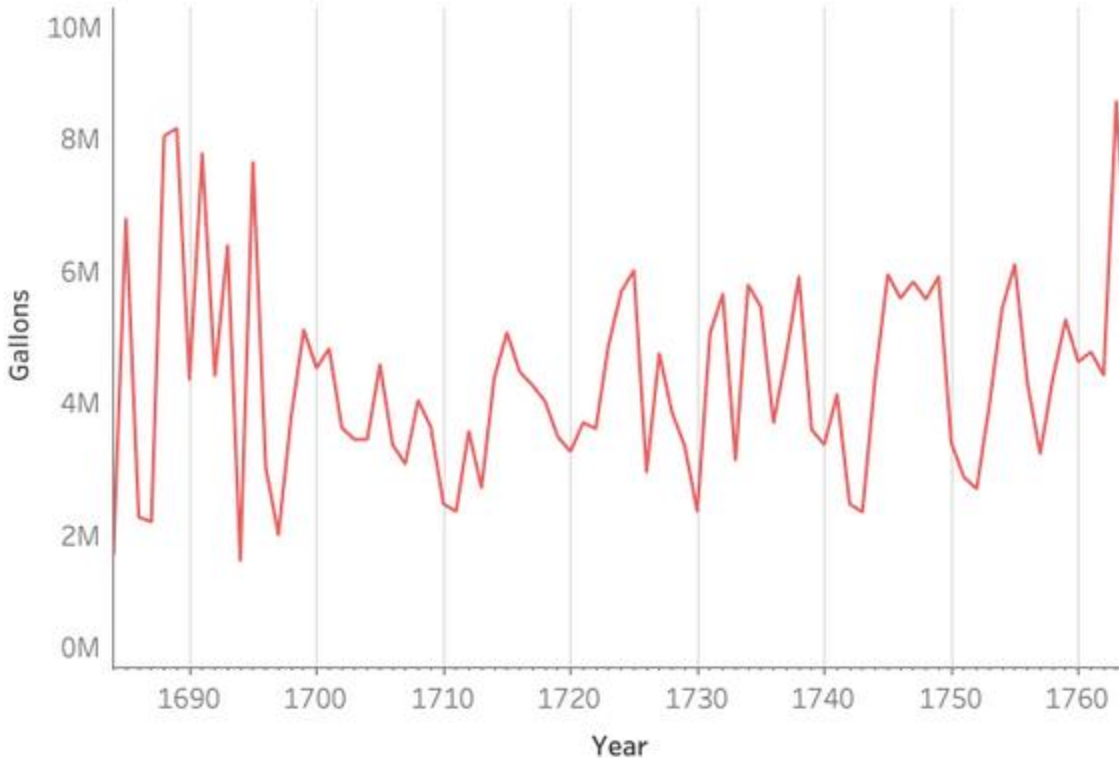

Figure 2.1. Excised quantities of cider, 1684-1764. Information from "A View of the Taxes, Funds and Publick Revenues of England, 1662-1762," in *Government accounts*, GRO D678/2/F10/31-32; "Papers rel to duty on cider, 1763-5," in *Revenue: Accompts, estimates, etc.* BL Add MS 38339 ff.44-49.

dramatic fashion. On-site consumption by farm laborers, which accounted for the bulk of non-excised cider, was considered necessary for the proper function of farms.

Compensation in cider, or "truck," accounted for roughly 15% of wages paid in cider counties through at least the first half of the nineteenth century.[109] This figure understates the importance of cider to the landowner's ability to attract seasonal laborers, particularly during harvest time when relative labor scarcity gave workers the ability to be selective in employers. Front-page advertisements for "good house and cider" found in cider country newspapers attest to the importance farmers placed on securing a proper supply of cider for their worker pool.[110] Even after cider wages became officially illegal in 1887, they continued to form a "necessary part of the relationship between a farmer and his men until the nineteen-forties."[111] Most cider production was geared to meet this demand, which would have been relatively inelastic over time.

However, in years of apple bumper crop hits, entire regions would have been awash with excess cider with no realistic prospects for selling this product locally for a worthwhile price. In such years, a far greater share of the total cider produced would have been traded to distant areas, thus exposing the commodity to excise taxes. A helpful way to visualize this dynamic is to imagine the excise figures to be the jagged outcroppings of an iceberg, where four-fifths of the mass is hidden beneath the visual surface. This larger base of on-site consumption would have expanded and contracted in size as well, of course, but nowhere near as dramatically as the exposed surface.

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[109] Legg, *So Merry Let Us Be*, 16.
[110] Crowden, *Ciderland*, 6.
[111] Legg, *So Merry Let Us Be*, 20.

Even allowing for the existence of a relatively steady base of unexcised cider, these swings were dramatic compared to beer excise figures, shown in *Figure 2.2.* Despite being a product that was also still frequently prepared in the home in the eighteenth century, brewing historian Peter Mathias has noted the excise figures for beer were surprisingly consistent. Notwithstanding large changes in grain prices from year-to-year and increases and decreases in excise rate proportionally similar to those for cider, the "prominent feature of the figures [for retailed beer] is their steadiness."[112]

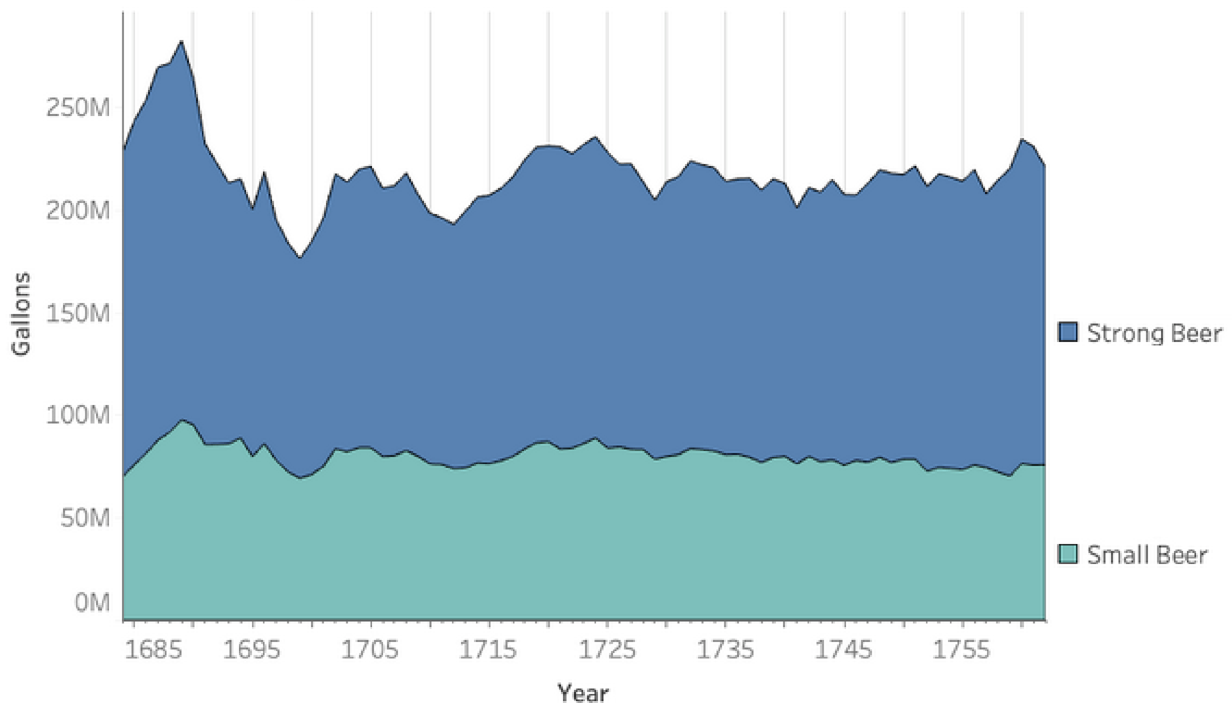

Figure 2.2. Excised quantities of beer, disaggregated by small beer and strong beer. Information from same sources as Figure 2.1.

[112] Mathias includes a table that shows the decline of homebrewing and rise of "Common Brewers" in the eighteenth century, who generally sold between 50-60% of the beer retailed. Mathias, *Brewing Industry in England*, 376-7.

The consistency in beer excise amounts over the years was especially pronounced in the case of lower alcohol "small beer." This category of beer was analogous to most of the retail cider captured in excise figures. Mathias argued that the ebb and flow of homebrewing accounted for part of the smoothness in retail figures, suggesting beer making in the home happened more frequently in years of low malt prices, with the obverse true in high price years. As mentioned above, the causality likely ran the other direction in the case of cider, where in bountiful years excess cider flowed out of the farms and onto the market, while in lean times it would have been necessary to keep sufficient quantities on hand to ensure farm operations. This dynamic, combined with the fruit base's susceptibility to weather events caused the excised, retail cider to be prone to great oscillations. An additional reason why the directionality would have been reversed between on-site cider and beer making had to do with how the base products, fruit and malt, were acquired in lean years. In times of high malt prices, many homebrewers would have been priced out of being able to afford their usual amount of grain. In years with poor apple harvests, however, the farmer would still have had apples on hand to continue his cider production, while any remaining product he chose to send to market would have been favorably profitable. Therefore, while the general eighteenth-century movement towards less homebrewing "was accelerated in a bad year" with high malt prices, it was retail cider that would have been most impacted in years with scarce fruit.[113]

Excise numbers for "strong beer" show greater variance between years, and this is the product that the type of estate-quality cider promoted by the likes of Beale, Evelyn, and Austen would have more closely approximated. Cider that fell in this category likely comprised no more than five to ten percent of the total, though this product had an outsized impact on intellectual

[113] Mathias, *Brewing Industry in England*, 376-7.

and political pursuits tied to cider. While the figures for strong beer are still considerably steadier than cider excise records, the comparison to different categories of beer quantities is useful for suggesting that the volatility was higher for the more expensive version of beer. This makes intuitive sense, as strong beer was made with more malt, and naturally would have been made in lesser quantities when harvests were poor. Likewise, high-quality cider was made with less water added and more dehydrating of moisture out of the apples through "resting," meaning more bushels of apples were needed to make it. Although we have no such equivalent excise records that break down cider by quality gradient, the beer tax data suggests the volume produced of high-end cider was likely especially volatile depending on the fruit harvest.

The second major dynamic one notices from the data in Figure 2.1 is the heightened instability of the 1680s and 90s, which contain both the highest peaks and lowest troughs of the data set, excluding 1763. The amount from 1763 is unusual in large part because it was from the first year where the strictures of the Cider Excise Bill allowing for on-site visitation by excisemen were put into effect. Excepting 1763, the next six highest volumes recorded were all in years in the decade from 1685-95, and the five years with the lowest amounts excised all occurred in roughly the same period from 1684-97. These dates correspond nearly precisely with the Nine Years War, when continental wine imports to England were severely disrupted and the *Methuen Treaty of 1703* with Portugal (sometimes referred to as the "Port Wine Treaty") had not yet been signed. Cider would have replaced some amount of the unfulfilled demand for wine during these years, which is confirmed by a similar increase in beer excise volumes in the initial part of the conflict. Tax enforcement may have been more vigorous, and compliance more associated with disloyalty at this time, causing additional cider and beer to be assessed that otherwise would have escaped notice. However, other major periods of warfare against France

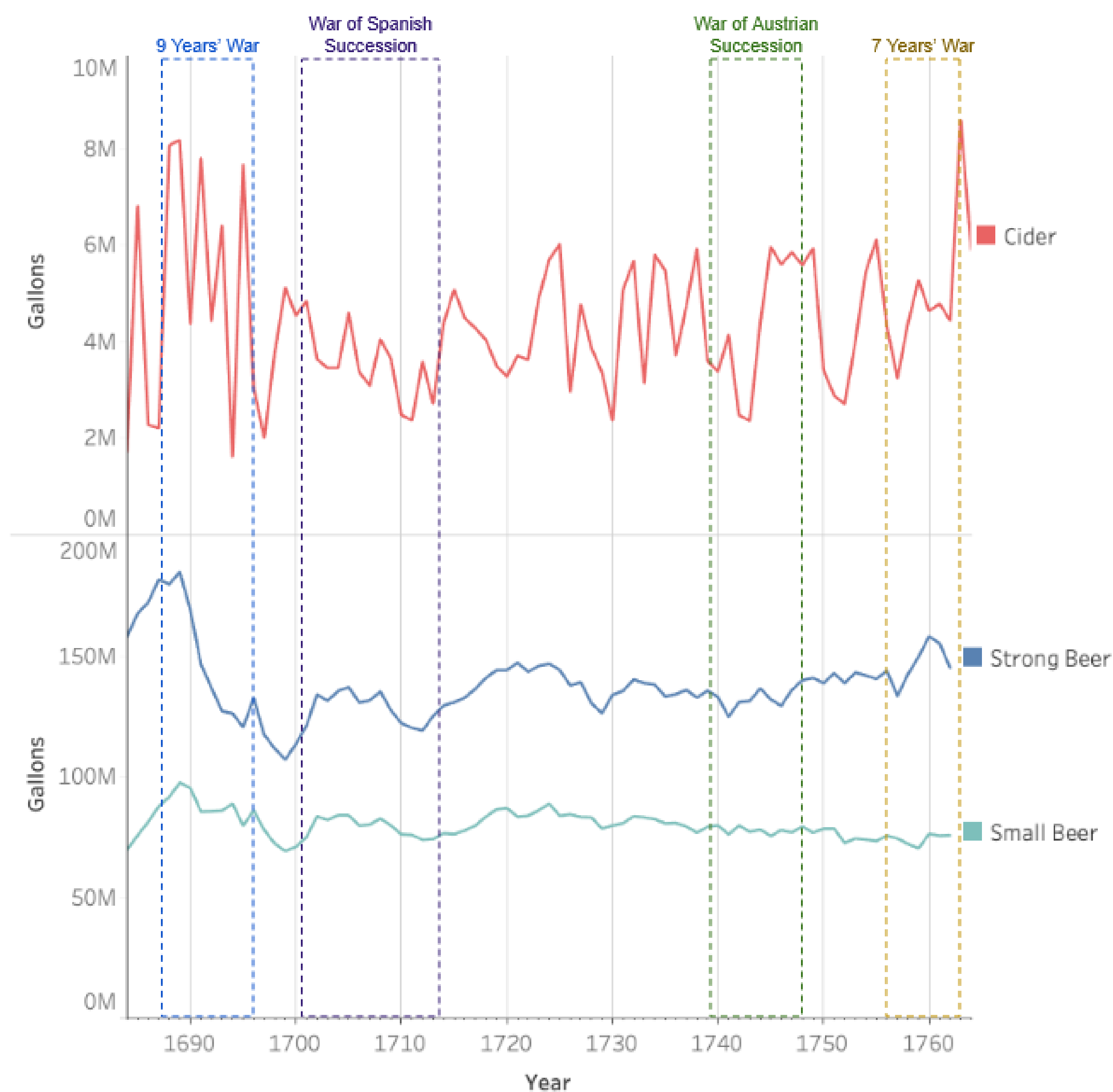

Figure 2.3. Excised quantities of cider, strong beer, and small beer with major wars with France overlaid. Information from same sources as Figure 2.1.

during the eighteenth century, shown in *Figure 2.3*, did not produce the same volatility seen during the Nine Years' War, leaving room for alternative explanations.

The presence of low-volume troughs of excised cider in the early period is curious and potentially more difficult to explain. Though the low points recorded in the 1680s and 90s were

the lowest five years for the data set, none of the totals were dramatically lower than lean years in the decades that followed. The peaks were thus much higher, possibly due to increased demand from disrupted Continental trade, while the troughs were probably the product of the same limiting weather events that plagued cider's ability to be produced consistently in later periods. In this sense, the low points are perhaps not irregular, even if the grouping of five particularly low tallies in the early period is notable.

The final major feature noticeable in the cider excise rates for cider is the relative stability of production figures when considered on a larger time scale. Apart from the Nine Years' War period and the post-Cider Excise Bill increase in the final two years, the peaks and troughs appear surprisingly consistent over time. This raises the question of whether one should think of the industry as expanding, contracting, or relatively flat during this span. This issue is problematized by only being able to assess on-site production figures indirectly, as well as the probability that excise collection of cider was not equivalently effective throughout the whole period. As demonstrated in Chapter Four, enforcement against cider tax evaders increased significantly by the end of this period, though whether this was a response to actual higher levels of fraud or a conscious choice by the state to intervene into a long-standing climate of hostility towards excise compliance is unclear.

The population of England during this period continued to grow apace, so it is safe to conclude that retail cider lost per-capita market share during the eighteenth century, explaining why popular consciousness of the beverage ebbed in the nineteenth century. The per-capita conclusion is supported by a large expansion of the gin and rum trade in England starting in roughly 1700, as seen in *Figure 2.4*. Whether the absolute volume of cider production changed much in this period is ultimately unknowable. As the state became increasingly determined to

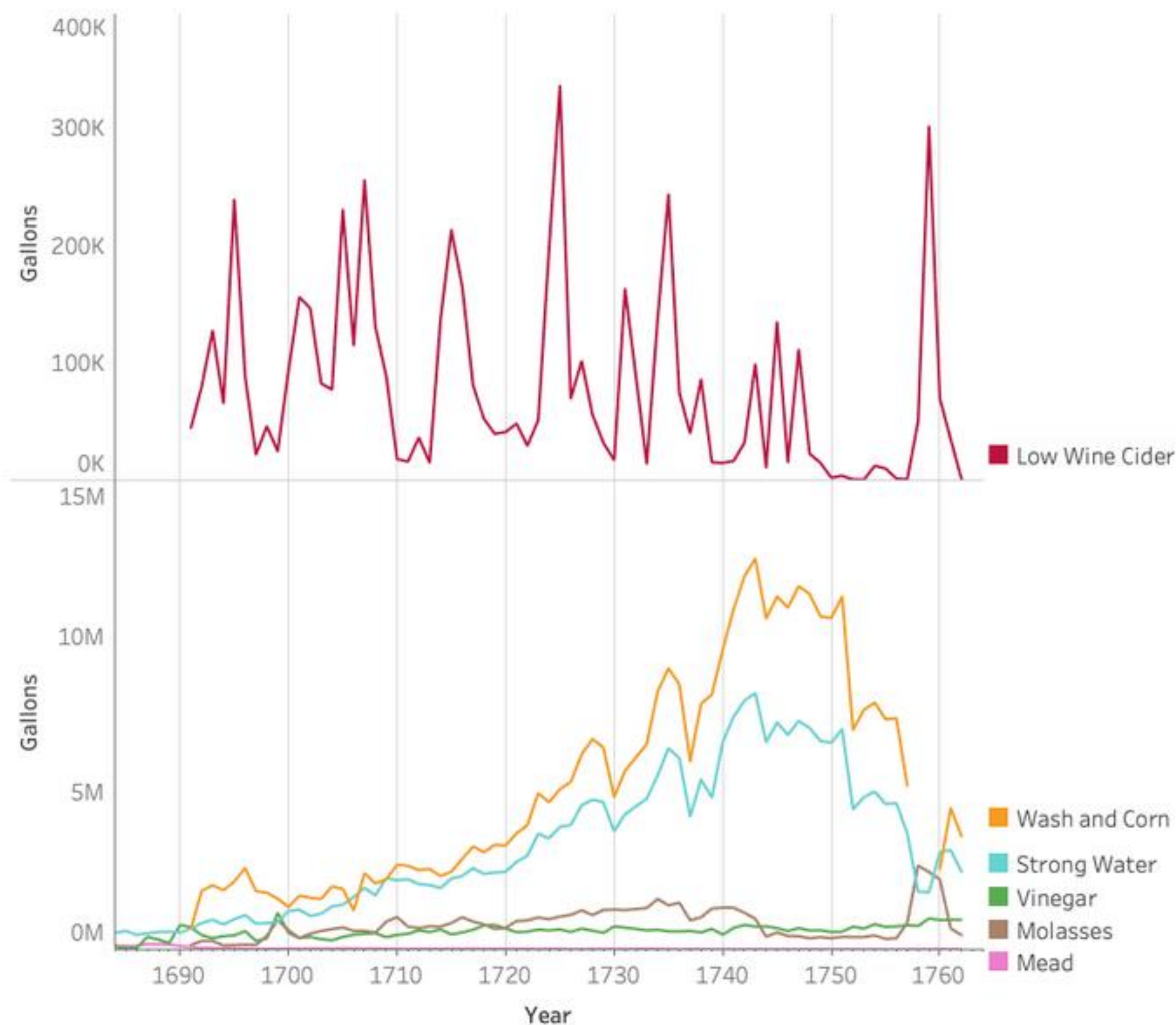

Figure 2.4. Excised quantities of low wines (weak spirits after first distillation) by source base. Information from same sources as Figure 2.1.

prosecute tax evasion in the century following 1750 the rate of excise collected from cider did not dramatically change. The volumes represented in *Figure 2.1*, though not disaggregated by port, are largely in line with what one would expect when compared to the 11,265 hogsheads that were excised during a bumper year in 1820 from the ports of Exeter and Dartmouth alone,

implying there was not a significant deterioration in absolute volumes. This amount of cider being taxed from one of the major centers of the wider Devonshire production area may have represented a greater portion of the total cider produced in the area, however, which could mean that absolute figures were trending downward.[114]

Although the timing and extent of cider's decline in the two centuries following 1750 are difficult to determine, this was familiar territory for a product that had previously undergone a similar downturn in the sixteenth century. The reasons that cider reemerged dramatically in the seventeenth century were both social and economic in nature, much in the same way that the twentieth century's reembrace of the drink has been driven by an intermixture of social factors and changing economic climate. Given the difficulty in quantifying these oscillations, the intellectual considerations that channeled and propelled cider's rise are all the more important to our historical understanding, and it is on these that the following chapter is focused.

[114] Daniel Lysons and Samuel Lysons, *Magna Britannia: Volume 6, Devonshire* (London: T. Cadell and W. Davies, 1822), cclxxx.

CHAPTER THREE: "To the Universal Benefit and General Improvement": English Politics and Cider, 1650-1665

In today's society, alcohol retains a privileged place as the most widely utilized intoxicant, excepting regions where religious proscription limits its use. The modern drink trade is undeniably large in volume and alcohol is discussed in terms of medical impact, state policy, and taxation, while its social presence touches the lives of even those who abstain from its consumption. A modern appraisal of alcohol as an object of intellectual interest is, perhaps, less obvious. This ambivalence is not exclusively modern, either, as pre-modern writers often had their own skepticism about the status of base physical materials relative to more weighty matters. Francis Bacon was known to insist on "experiments of light" taking "precedence over experiments of fruit," illustrating the argument by pointing to the relative order of their appearance in the Christian creation story.[1] This dualistic mode of thinking in the European intellectual tradition is traceable at least as far as Plato, who divided the mind and the body as fundamentally distinct, giving things of the mind the more prominent position as being worthy of intellectual pursuit.

In this chapter I will argue that such a framework did not impede serious intellectual and political pursuit of cider in early modern England. Social historians of Europe have long noted that "eating and drinking then occupied a far more central position in social life than today," and even more than some of its European counterparts, England "seems to have prized [alcohol] drinking."[2] Unlike today, alcohol was generally, though not exclusively, viewed in a positive

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[1] Charles Webster, *The Great Instauration: Science, Medicine, and Reform 1626-1660* (New York: Holmes & Meier Publishers, 1976), 336.

[2] Norton Elias, *The Civilizing Process: The History of Manners*, trans. Edmund Jephcott (New York: Urizen Books, [1939] 1978), 60; John Chartres, "No English Calvados? English Distillers and the Cider Industry in the Seventeenth

light. Alcohol consumption was far more normalized, consumption rates were correspondingly higher, the uses of alcohol broadened, and the prospects for achieving state goals through hard drink were deemed more plausible and routinely sought after.[3]

I. On the Importance of Alcohol in Early Modern England

Drinking was important in the daily lives of individuals at all strata of society. Agricultural laborers regularly drank what would appear to be fantastical amounts by today's standards, with figures indicating in some cases three to four liters of beer or cider per person per day.[4] More sober anecdotal estimates of seventeenth-century consumption in both England and Germany have suggested closer to one liter per person per day.[5] Though it is difficult to account for total alcohol consumption rates given poor record keeping, in the later part of the seventeenth century the consumption rate in England was roughly 1000 pints per person per year. By way of comparison, "in 2006 annual consumption was just 209 pints per person in the United Kingdom and 172… in the United States."[6] The fact that consumption may well have been five times as large as current rates is suggestive of alcohol's former reach, though these figures varied significantly by gender, occupation, and social order.[7]

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and Eighteenth Centuries," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 324.

[3] In an era where hard currency was often not available, cider was frequently used in its place. A proportion of wages, or "truck," was paid to agricultural workers in the west-country in cider through the late nineteenth century. Two brief examples from Devon further serve to illustrate the cider's potential uses: in 1772 it was used to pay debts to the Rectory of Faringdon, and ten hogsheads of cider were paid as dowry to the father of John White for his son's marriage to the widow Grace Chave in 1757. DHC 3167A/PR/1/2; DHC 4399M/F/14.

[4] Adam Smyth, ed., *A Pleasing Sinne: Drink and Conviviality in Seventeenth-Century England* (Rochester, NY: D.S. Brewer, 2004), xviii.

[5] Thomas E. Brennan, ed., *Public Drinking in the Early Modern World: Voices from the Tavern, 1500-1800*, vol.1, *General Introduction. France* (London: Pickering & Chatto, 2011), xii.

[6] Sarah Hand Meacham, *Every Home a Distillery: Alcohol, Gender, and Technology in the Colonial Chesapeake* (Baltimore: Johns Hopkins University Press, 2009), 8.

[7] Peter Clark, *The English Alehouse: A Social History 1200-1830* (London: Longman Group, 1983), 123-132.

A comparison between modern and early modern drinking rates must also adjust for the fact that drinking by youths was much higher and socially acceptable in the early period. Whereas modern studies typically only account for consumption by adults and near-adult teenagers (younger people consume negligible amounts of alcohol in today's culture), children were regular consumers in early modern England.[8] Royal Society founding member and writer John Evelyn, without a hint of distaste, related the story of a wager between two gentlemen to determine whether cider or wine was more pleasing. "The Judges convene; viz. A Youth of ten years old, a Man of thirty, and a Third of sixty; and by All these also our Vintner lost the Battel."[9] Children far younger than 10 would be regularly be given "small" cider or beer with a low alcohol strength around two per cent by volume. The Cyder Excise of 1763 was defended on the grounds that it generously exempted alcohol consumed by children from collection.[10] One production manual amazingly boasted that its method of cidermaking would allow for such a high degree of control over the cider's alcohol and sweetness levels that it would be suitable for infants as young as "twelve months old."[11] These high rates of consumption by people who typically drink negligible amounts today, primarily young people and laborers imbibing while working, thus combined into large aggregate numbers. This caused the alcohol trade to rank in the top tier of pre-modern industries by sheer size. In terms of economic importance, as late as the 1720s and 30s "consumers' spending on drink exceeded the value at prime cost of the whole of British overseas trade."[12]

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[8] See, for instance, the World Health Organization's 2018 "Global status report on alcohol and health," which limits its data on national drinking rates to those age 15 and over.
[9] John Evelyn, *Pomona, or, An appendix concerning fruit-trees in relation to cider, the making and several ways of ordering it* (London: Printed by Jo. Martyn and Ja. Allestry, 1664), 3-4.
[10] "Queries relative to the Cyder Act" BL Add MS 38355 ff.298.
[11] John Mortimer, *The Whole Art of Husbandry, or the Way of Managing and Improving of Land* (London: Printed for R. Robinson, 1707), 592.
[12] Chartres, "No English Calvados?," 324.

High consumption figures make partial sense when one assesses alcohol's role in food preservation. In an era with little recourse to refrigeration, preserving foods with salt, sugar, and vinegar were necessary strategies. Agricultural historian Joan Thirsk named the increasing availability of preservation as possibly the most important food trend of the late sixteenth and early seventeenth centuries.[13] Against the backdrop of a rapidly expanding population in Britain, these efforts were necessary. Vinegar was made directly from alcoholic products, including

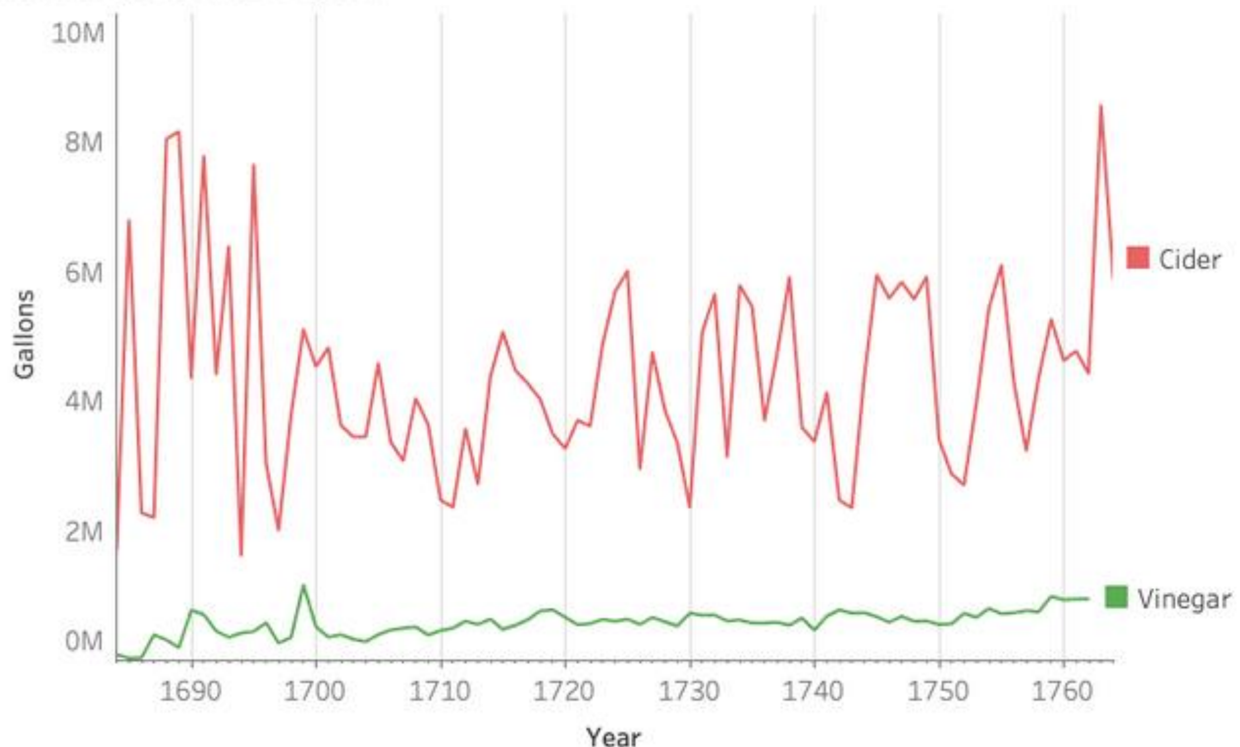

Figure 3.1. Excised quantities of cider and vinegar compared, 1684-1764. Information from same sources as Figure 2.1.

cider, but this process was time consuming and yielded comparatively little product for the amount of effort expended. Although the data in *Figure 3.1* is from a slightly later period, the

[13] Joan Thirsk, *Food in early modern England: phases, fads, fashions 1500-1760*, (London: Hambledon Continuum, 2007), 94.

figures demonstrate cider was generally made at rates far above vinegar production, and this dynamic was obviously even more pronounced in the case of beer. Fermentation was thus a manageable and broadly effective way to extend the caloric value of fruits and grains.

II. "A Porch to be too big for the House?": The embrace of alcohol as a project in improver writing, popular ideas, and politics

Alcohol was important for reasons beyond its wide consumption and sizeable economic impact. The tradition of Platonic bifurcation between abstract theory and material practice is notably difficult to sustain around food production. From Xenophon to Thomas Jefferson, there exists a long tradition of viewing certain forms of husbandry as being beneficial for inculcating republican virtue and one's spiritual edification, and orchards maintain an especially prominent place in this literature.[14] As modern philosopher Lisa Heldke has noted: "Foodmaking, rather than drawing us to mark a sharp distinction between mental and manual labor, or between theoretical and practical work, tends to invite us to see itself as a 'mentally manual' activity, a 'theoretically practical' activity--a 'thoughtful practice.'"[15] Seventeenth-century improver writers saw the relationship between individuals and alcohol as a field of serious intellectual, and especially political pursuit. This concern would both motivate their desire to expand cider production and impact the form that their recommendations took. It would not have surprised a contemporary observer to note that the most important cider promoter of the Protectorate period initially intended for his 1653 instructional manual, *A Treatise of Fruit-Trees*, to be bound

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[14] Ralph Austen, for instance, included a list of quotations on the salubrious nature of fruit trees from famous writers ranging from Aristotle's protege, Theophrastus, up through Francis Bacon in his *A Treatise of Fruit-Trees, Shewing the manner of Grafting, Setting, Pruning, and Ordering of them in all respects* (Oxford: Printed for Tho. Robinson, 1653), 6-11.

[15] Lisa M. Heldke, "Foodmaking as Thoughtful Practice," in *Cooking, Eating, Thinking: Transformative Philosophies of Food*, ed. Deane W. Curtin and Lisa M. Heldke (Bloomington: Indiana University Press, 1992), 203.

together with a philosophical work on the same topic. When Ralph Austen's *Treatise* was reprinted in 1657, it was supplemented with over 200 pages detailing his politically charged approach to the spirituality of fruit trees and cider in the form of *The Spiritual use of an Orchard*.[16] To Austen, an orchard was a natural metaphor for politics, suggestive of the necessity to trim the tree of state of dead wood from time to time (with obvious revolutionary implications). He further related the high church of England to beautiful "eating" apple trees, which, while impressive visually, produced far less cider (or salvation of souls). These compared unfavorably to the lowly shrub cider-apple trees he associated with itinerant preachers, which produced better cider and more adherents to a proper Christian life. To those contemporaries who might think his philosophical, religious, and political arguments "too large" for a book on fruit trees, or in his phrase, a "porch too big for the house," Austen assured his reader that when the first, more practical text was considered alongside the second, spiritual treatise, they would create a complete work.[17] The topic's political salience for years after his writing suggests many others were of a like mind.

English writers on husbandry by the mid-seventeenth century nearly all saw themselves as working within the scientific tradition established by Francis Bacon (though in practice they used his works in much the same way as quarreling religious sects used the Bible to attack each other). Just as Bacon cited the Creation story to justify placing experiments of light over experiments of fruit, he often related the Greek myth of Atalanta to similar effect.[18] The story of the speedy huntress details how she eventually lost a race to Hippomenes only because he was

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[16] Ralph Austen, *The Spirituall Use, of an Orchard; or Garden of Fruit-Trees. Held forth in diverse Similitudes between Naturall and Spirituall Fruit-trees, in the Natures and Ordering according to Scripture and Experience* (Oxford: Printed by H. Hall for T. Robinson, 1657).
[17] Austen, *A Treatise of Fruit Trees*, xi.
[18] Webster, *Great Instauration*, 336.

able to distract her by rolling irresistible golden apples off the racecourse. For Bacon, Atalanta signified art and science, which rather than "persever[ing] in a true and lawful course," instead "makes stops after good beginnings, leaves the race, and turns aside to profit and commodity."[19]

Ironically, Bacon insisted that science was the means by which humanity's fall from grace could be overcome, and his ideal scientific society explicitly embraced improving fruit to a higher degree than nature could provide. In a sense, he was both instructing his followers to turn away from Atalanta's golden apples while encouraging them to create such rarified fruit themselves. Bacon's drive towards a mastery of nature is evident in *New Atlantis*, where gardens and orchards full of grafted fruit trees and wild-fruit trees would be made "by art greater much than their nature."[20] This project was a reversal of how the traditional Eden narrative had proceeded, where such fruits would now become the instrument of salvation rather than damnation. Contemporaries could not fail to see the religious problems associated with elevating cider as an improver good, however. John Taylor described cider as having been the first drink available to Adam and Eve due to the presence of apples in the Garden of Eden, and thus for him the beverage was associated with the original forbidden fruit, with attendant seductive qualities. In listing the drinks of England, Taylor wrote of cider: "Syder (whose Anagram is Desyr) desires and deserves the first place, as being the most ancient: it is made of Apples, and is of that antiquity, that it is thought by some to have beene invented and made by Eve, and afterwards practised by Cain, who by the making of it in the time of his vagrancy, got a very competent estate."[21] The association of cider to Eve and Cain in the context of covetousness and a

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[19] Francis Bacon, "The Wisdom of the Ancients," in *The Works of Francis Bacon, Lord Chancellor of England*, ed. Basil Montagu (London: W. Pickering, 1825), 67-8.
[20] Francis Bacon, *New Atlantis*, in *Francis Bacon: The Major Works*, ed. Brian Vickers (Oxford: Oxford University Press, 2008), 482.
[21] John Taylor, *Drinke and welcome: or The Famous historie of the most part of Drinks in use now in the Kingdomes of Great Brittaine and Ireland..."* (London: Printed by Anne Griffin, 1637), 2.

successful estate clearly demonstrates why cider improvers a generation later, writing in the tradition of Bacon, would have been compelled to justify their support for the drink in multiple ways *in addition* to its profitability.

Despite their consistent references to his influence, Bacon's cautionary commercial musings appear to have carried precious little weight in the minds of cider improvers of the following generation, perhaps at least partially due to the ironies noted above. Fruit trees and cider became a booming business and promoters embraced these articles' commodification thoroughly. Austen, who consciously imagined himself as carrying on Bacon's spirit in such works as *Observations upon some part of Sr. Francis Bacon's Naturall History as it concernes, Fruit-Trees, Fruits, and Flowers*, was typical of writers on cider. Rebranded as a service to "publique profit" rather than personal profit—though there was plenty of that too—he and a vast array of other cider writers made clear their intentions to harness the profitability of cider for political and social goals.[22] Contemporaries wrote obsessively in the language of "improvement," seeking to maximize the profitability of agricultural land in demonstrable and quantifiable ways.[23] John Worlidge, communicating at the tail end of the initial outburst of cider enthusiasm in 1669, surveyed the writing landscape and confidently declared unanimity among observers that "the planting of Fruit-trees is undoubtedly one of the greatest Improvements that can be made of the most part of our English Land, as all who have written of Improvements do agree."[24]

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[22] Ralph Austen, *Observations upon some part of Sr. Francis Bacon's Naturall History as it concernes, Fruit-Trees, Fruits, and Flowers* (Oxford: Printed by Hen. Hall for Thomas Robinson, 1658), iv.
[23] Paul Slack, *The Invention of Improvement: Information and Material Progress in Seventeenth-Century England* (Oxford: Oxford University Press, 2015), 2-3.
[24] John Worlidge, *Systema Agriculturae; The Mystery of Husbandry Discovered: Treating of the several New and most Advantagious Ways Of Tilling, Planting, Sowing, Manuring, Ordering, Improving Of all sorts of Gardens, Orchards, Meadows, Pastures, Corn-lands, Woods & Coppices* (London: Printed for Tho. Dring, 1669), 98.

Perhaps to emphasize the non-commercial components of their project, the outpouring of pamphlet and treatise literature on cider constantly proclaimed the importance of the topic more generally. It was such a consistent trope that orchards and cider were matters fit for nobility that one intuits that the writers perceived themselves to be fighting against some level of stigma. Earlier writer John Parkinson reassured his readers that "the study, knowledge, and trauel in [fruit trees]… haue been entertained of great Kings, Princes and Potentates, without disparagement to their Greatnesse."[25] Austen anticipated critiques from readers who might take issue with the boldness with which he presented the importance of the topic. Austen turned the matter's seeming familiarity around, claiming the issue, "though perhaps a poore and meane one in it selfe, if thoroughly weighed with Reason and judgement, may arise many rich and rare inventions." To further illustrate the point, he referred, as he often did, to Bacon: "And it's most true, which the *Lord Bacon* saies to this purpose: *As through a small hole, or cranny, a man may see great Objects, so through small and contemptible instances, men may see great Axioms*."[26]

Having a wide spectrum of ideas about alcohol was by no means merely limited to high-minded, philosophically inclined writers. People from the lower orders in English society expressed intensely held beliefs over the cultural acceptability of different types of drink and how they saw themselves in relation to the range of alcohol choices before them. It is within this framework that one can begin to understand the social tensions that emerged, for example, at the Virginian Berkeley Hundred plantation when new colonists became fiercely agitated upon

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[25] John Parkinson, *Paradisi in sole paradisus terrestris. or A garden of all sorts of pleasant flowers which our English ayre will permitt to be noursed vp with a kitchen garden of all manner of herbes, rootes, & fruites, for meate or sause vsed with vs, and an orchard of all sorte of fruitbearing trees and shrubbes fit for our land together with the right orderinge planting & preseruing of them and their vses & vertues* (London: Printed by Humfrey Lownes and Robert Young, 1629), vi.
[26] Austen, *A Treatise of Fruit Trees*, xi.

learning they would have to drink water.[27] Beyond concerns held by Englishmen of the era that cold water was dangerously unhealthy, the absence of alcohol in one's diet was perceived to be a fate only suffered by the poorest in England, and thus as a sign of cultural inferiority.[28] Drinking could mean many things to different people in this era, or even many things to the same person, as Adam Smyth's analysis of the diary of Samuel Pepys shows. Pepys' diary is full of references to drink, "oscillating between celebration and regret… Was alcohol a source of health or illness? A force for social bonding, or a catalyst for disorder and rebellion? A marker of social grace, or a sign of debasement?"[29] To Englishmen of the seventeenth century, it was clearly all of these things.

Historians have been well attuned to the fact that social bonding over alcohol did not occur in simply random ways. Both the mode of drinking and type of alcohol being consumed indicated political leanings. Today, one might be able to discern something of a drinker's politics depending on whether they are imbibing a "craft" beer or an industrial lager, but in the heightened divisions of the Civil War era these types of drink choices put consumer identities into particularly sharp relief. More generally in Europe, beer with hops was associated with Protestants and thus with heresy by Catholic writers.[30] In England, Royalists were type casted by their opponents and even themselves as wine drinkers; whereas Royalists disparaged Roundhead drinking of beer, they celebrated "'princely' canary and claret, 'born of the royal vine.'"[31] The image of iconoclastic Parliamentarian soldiers turning churches into drunken alehouses was a

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[27] As related by plantation governor George Thorpe, "the newcomers were disappointed at the victuals in contrast to what they had been led to expect and 'not knowing they shall drink *water*.'" Clifford Dowdey, *The Great Plantation*, (Charles City, V.A.: Berkeley Plantation, 1980), 39.
[28] Meacham, *Every Home a Distillery*, 13.
[29] Smyth, *A Pleasing Sinne*, xiv.
[30] Louise Hill Curth and Tanya M. Cassidy, "'Health, Strength and Happiness': Medical Constructions of Wine and Beer in Early Modern England," in *A Pleasing Sinne*, ed. Adam Smyth, 146-7.
[31] Marika Keblusek, "Wine for Comfort: Drinking and the Royalist Exile Experience, 1642-1660," in *A Pleasing Sinne*, ed. Adam Smyth, 57.

stock Royalist propaganda piece, and "pamphleteers exploited to the fullest Oliver Cromwell's former career as a brewer."[32] One's eagerness to engage in traditional occasions of mass drinking would also have indicated something of the person's political leanings. Royalist writers were conspicuously in favor of upholding the practice of local fairs, publicly celebrated holidays, and other festivities where large-scale heavy drinking was a primary component, in opposition to their Independent counterparts.[33]

The history of alcohol production, trade, and consumption has been a neglected area of study for historians, and even among those food histories that do exist, drink has been an object of inquiry far less frequently than solid food.[34] As seen in Chapters One and Two, the peculiar mode of cider's production and distribution has made the article especially difficult to quantify or otherwise trace in the historical record. The vast majority of cider was produced and consumed at roughly the same location, much to the frustration of the early modern excise man, to say nothing of the modern historian. In the cornerstone series of English husbandry history, *The Agrarian History of England and Wales*, Giles Harrison voices a typical lament on the "paucity of detailed material exist[ing] for the cider industry," while at the same time listing cider as one of the two most dynamic west-country industries of the period alongside livestock farming. He morosely concludes his chapter on south-west England by proclaiming that "the full truth of the most important developments in the west-country farming in this period remains inaccessible and untold."[35]

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[32] Keblusek, "Wine for Comfort," 57.
[33] Cedric C. Brown, "Sons of Beer and Sons of Ben: Drink as a Social Marker in Seventeenth-Century England," in *A Pleasing Sinne*, ed. Adam Smyth, 5.
[34] Igor de Garine, "For a Pluridisciplinary Approach to Drinking," in *Drinking: Anthropological Approaches*, eds. Igor de Garine and Valerie de Garine (New York: Berghahn Books, 2001), 1.
[35] Giles V. Harrison, "The South-West: Dorset, Somerset, Devon, and Cornwall," in *The Agrarian History of England and Wales,* vol. V., pt. 1, ed. Joan Thirsk (Cambridge: Cambridge University Press, 1984), 388.

Such pessimism is only partially warranted, thankfully. Quantifying when, where, and how much early modern English cider was produced and consumed with exactitude is beyond historical reach. Happily, this level of detail is not necessary to gauge the impact political concerns had on cider production or the mark that expanded production in turn imposed on English politics. To illustrate the political salience of cider, the current chapter will examine the particularly fraught period of the Civil Wars, Cromwellian Protectorate, and Restoration, from roughly 1640-1665. This period marks the initial takeoff of a new boom in production and the peak of English political interest in cider. Cider as a political object has previously been a neglected topic, with the possible notable exception of its role in the 1760s when a new excise tax on the product, in Horace Walpole's words, "raised a great flame in the western counties; and by management that flame was transported to the metropolis." This 1763 Cider Excise Bill and the resistance of the so-called "Cyder Lords," which was the occasion for the Bute Ministry's downfall and the memorable phrase, "an Englishman's home is his castle," has been ably covered by Patrick Woodland.[36] This chapter will demonstrate that cider had a longer history as a political object before what this brief appearance on the historical stage might otherwise imply.

III. Assessing the Landscape in which Cider Improver Writing Flourished

Cider reemerged forcefully in mid-century England for interwoven and mutually reinforcing political and economic reasons. At this time, England was figuratively and literally

[36] See Patrick T.M. Woodland, "Extra-Parliamentary Organization in the Making: Benjamin Heath and the Opposition to the 1763 Cider Excise," *Parliamentary History* iv (1985): 115-36; Patrick T.M. Woodland, "Political Atomization and Regional Interests in the Parliament: The Impact of the Cider Debates, 1763-1766," *Parliamentary History* viii (1989): 63-89; Patrick T.M. Woodland, "The House of Lords, the City of London and Political Controversy in the Mid-1760s: The Opposition to the Cider Excise Further Considered," *Parliamentary History* xi (1992): 57-87; Patrick T. M. Woodland, "The Cider Excise, 1763-66" (D.Phil. diss., St. Peter's College, Oxford, 1982).

scarred from a season of profound disorder. While the Civil Wars of the 1640s stand out as focal points of disruption, they were only the most extraordinary instances of a more widespread breakdown in social order in mid-seventeenth-century England's agricultural sector. Whether one agrees with Eric Hobsbawm's formulation of a *general crisis* that afflicted early modern states of this period more broadly, the immensity of the problems facing successive English regimes and their inability to cope effectively in the face of such difficulties is manifestly clear.[37]

The extraordinary mid-century conditions constituted both a generative and constricting force that applied itself upon the period's agricultural literature. What might be called an *ideology of improvement* existed prior to cider's rise, but "improving" writers seized on fruit trees and their primary commercial product, cider, as a panacea to a long list of the era's very real problems. Even prior to the Civil Wars, various "projector" activities made the rural scene "at the end of the 1630s far from peaceful." Fen drainage, searches for "concealed land," and halting attempts in fits and starts at enclosure led to an outpouring of rural discontent, much of which was written into the Grand Remonstrance of 1641.[38] These problems continued and new difficulties arose after the Civil Wars. The Republic was so indebted it had to sell the bishops' lands in 1646, deans and chapters land in 1649, and all crown lands in 1649 as well. "Social relations in villages were much disturbed in consequence, and to a less extent so were farming regimes."[39] Whereas confiscated royalists' estates were generally sold to local men of means and often recovered by original owners in time, the sale of bishops' lands and crown lands were particularly disruptive in that the bulk of these properties were redistributed to non-local

[37] Eric Hobsbawm, "The General Crisis of the European Economy in the 17th Century," *Past and Present*, vol. 5, issue 1 (November 1954): 33-53.
[38] Joan Thirsk, "Agrarian Problems and the English Revolution," in *Town and Countryside in the English Revolution*, ed. R.C. Richardson (Manchester, U.K.: Manchester University Press, 1992), 172.
[39] Thirsk, "Agrarian Problems," 173.

outsiders, often soldiers as payment for arrears.[40] Tenants were frequently displeased to have new landlords, and new landlords often used, or desired to use, their land in new ways, upending traditional patterns.

Disruption in England's food networks extended beyond the rural sphere into urban centers. State involvement and regulation of food trades through the granting of monopolies created entrenched interests that were hostile to new developments. For instance, evolving ideas over the intersection of medical practice and food devolved into fighting between the Apothecaries society and Grocers monopoly, of which the Apothecaries were originally a part. This led to a newly chartered Apothecaries society in 1617, a group that would have an early hand in cider distillation efforts. Over the next decades, "distillers, druggists and confectioners of the City joined the Grocers in complaining about the impeachments of the Apothecaries," and the many battles between the Apothecaries and College of Physicians eventually facilitated the chartering of the breakaway distillers in 1658.[41] Distilled cider, already infrequently in use as an ingredient in medicinal recipes, appears to only have become more rare after this split.

The most significant development in terms of agrarian disruption, apart from the Civil Wars, was a succession of harvest failures in the second half of the 1640s.[42] Steve Hindle has argued this crisis has been underappreciated in terms of both its direct impact on economically insecure elements of the rural population and the nascent political order rising out of Charles I's defeat. The Commonwealth, particularly in its infancy, was so fragile that acute food shortages

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[40] Ian Gentles, "The Sales of Bishops' Lands in the English Revolution, 1646-1660," *The English Historical Review*, vol. 95, no. 376 (July 1980): 573.

[41] Penelope Hunting, *A History of the Society of Apothecaries* (London: The Society of Apothecaries, 1998), 35-6, 42-50.

[42] Steve Hindle has identified 1647-50 as the years of "harvest crisis," while Thirsk more expansively lists 1646-51. Steve Hindle, "Dearth and the English revolution: the harvest crisis of 1647–50," *Economic History Review* 61 (2008): 64–98; Thirsk, "Agrarian Problems," 174.

were a clear political concern: "In 1649, the regime was new and insecure, facing threats from both right and left, and was confronted with the very real possibility that hunger might be a factor in determining political allegiance."[43] Cider was lauded as a failsafe product in times of famine due to the supposed ability of its fruit base to be repurposed for eating when needed. It was common for writers of the period to reference such an arrangement, whereby "the poor shall have somewhat in time of want to relieve their necessity."[44] The memory of these hungry years apparently held tight on England's collective consciousness, as this line of reasoning would be expounded throughout the next decades despite England entering a century-long trough of grain and meat prices that would see the end of large-scale hunger in England.

This long period of depressed prices in staple food prices that followed the crisis years was highly disruptive in its own right. That England was embarking on a roughly 100-year cycle of glutted grain markets would have been impossible for a farmer in the early 1650s to perceive, of course, and many tried to navigate the low prices with their traditional offerings. Eventually, significant numbers of farmers were forced to adopt new strategies, but without the benefit of hindsight it would have been supremely difficult to choose from a dizzying array of new crops and methods. Counterintuitively, perhaps, the place that farmers in large part sought their "ideas for radical changes" was in the reintroduction of ideas and crops more heavily used in the past.[45] These ideas were typically already present for a long time but became newly popular again. Cider, in this sense, was a very likely champion for farmer and improver writers.

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[43] Hindle, "Dearth and the English Revolution," 67.

[44] John Evelyn, *Sylva, or A Discourse of Forest-Trees and the Propagation of Timber, To which is annexed, Pomona, or, An appendix concerning fruit-trees in relation to cider, the making and several ways of ordering it* (London: Printed by Jo. Martyn and Ja. Allestry, 1664), 102.

[45] Joan Thirsk, "Making a Fresh Start: Sixteenth-Century Agriculture and the Classical Inspiration," in *Culture and Cultivation in early modern England: Writing and the Land*, eds. Michael Leslie and Timothy Raylor (Leicester: Leicester University Press, 1992), 15.

These developments, taken in total, go some way towards explaining why Englishmen of this period, as Keith Wrightson has argued, were “deeply preoccupied with the problems of order and degree.”[46] An ambient climate of hostility prevailed towards projector schemes and excessive profits, ultimately shaping the framing and arguments deployed by cider boosters. A sense that the old system had failed breathed new life into “debates about the relative significance of divine displeasure and human greed in causing dearth; about the evils of profiteering; and about the advantages and disadvantages of market regulation.”[47] Writers boasting of cider’s potential were required to navigate the contours of this debate and the way they did so was through the language of “improvement.”

Improvement as a societal endeavor might seem to be a natural undertaking to the modern mind, but “such aspirations have a history… [and] have not been equally prominent in all past societies.”[48] Improvement consciously became part of seventeenth-century English culture as an identity and rhetorical device. In Paul Slack’s telling, the distinguishing characteristic of change as improvement, as compared to counterparts like *reformation*, *restoration*, and *revolution*, was its incrementalism. It bundled together a number of concepts from other cultures, notably Renaissance Italy but also France. Improvement was characterized by an appetite for new inventions and discoveries, a systematic search for “certain knowledge,” and added a type of Baconian attitude about empirical investigations where progress might be measurable by numbers.[49]

However, the example of cider alludes to a potentially more interesting history of improvement, one where incrementalism may have carried the day, ultimately, but not for lack of

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[46] Keith Wrightson, *English society, 1580-1680* (New Brunswick, N.J.: Rutgers University Press, 1982), 18.
[47] Hindle, “Dearth and the English Revolution,” 70.
[48] Slack, *Invention of Improvement,* 1.
[49] Slack, *Invention of Improvement*, vii, 2-3.

opposition. The patron saint of improver writers, Francis Bacon, was notably ambitious in his promethean, instauration-inflected approach towards improvement (or perhaps, "proto-improvement"). Bacon radically dismissed traditional knowledge structures in favor of natural knowledge, but his repurposing of this knowledge base towards the goal of sustaining new creation in imitation of God was even bolder in ambition. Some of this spirit was clearly lost by the Commonwealth era, but Ralph Austen came the closest of the cider writers to embracing improvement of the scope and intensity exhibited by Bacon. Austen advocated fruit-tree planting at a massive scale that he imagined would lead to a vast array of resultant advances, particularly in economic and spiritual terms, that recalled Bacon's advocacy for infinite improvement.[50] Austen's diminishment in his own time, to say nothing of his obscure historical reputation when compared to contemporary cider writers he was easily the equal to like Beale and Evelyn, suggests why Paul Slack would naturally define "improvement" in terms that reflected the aspirations of those who were successful. The contrasting approaches of cider writers to improvement will be detailed more fully later in the chapter.

In the seventeenth century, improvement ideology still retained a measure of its formerly more agrarian-restricted meaning compared to the full-throated eighteenth-century version; in the first half of the seventeenth century, in particular, the term primarily referred to the "augmentation of rental value, and for a long time yet it would generally be used to refer to practices that raised the rent of land, without any wider implications." But soon after 1650, "usage of the term exploded, the task of improvement becoming an exhortation to betterment of

[50] For a similar Commonwealth-era Baconian project, see: Philip J. Stern and Carl Wennerlind, *Mercantilism Reimagined: Political Economy in Early Modern Britain and Its Empire* (Oxford: Oxford University Press, 2013), passim.

any kind, going far beyond its agrarian roots."[51] In the context of cider, the promotion of the product took on a heavy moralistic tone. This can be seen, for instance, when John Beale chastised those who did not grow their own fruit but imported it from abroad, calling such Englishmen "the Consumers of their Inheritance, and the Desertors of their Country."[52]

The stage on which improver ideology was initially enacted, however, was overwhelmingly agrarian, and the circumstances this ideology developed in relation to were similarly agrarian. The disruptive conditions described above, and the responses these engendered, have provided the grist for ongoing historiographical debate; noteworthily, "the transition from feudalism to capitalism in the countryside, the pace and character of the enclosure movement, and the 'revolution' in agricultural practices all remain points of contention."[53] Andrew McRae, utilizing the disciplinary approaches offered by the English studies field, sidesteps the direct historical questions of where, when, and to what degree these developments took place, and instead offers the observation that "practices of representation are enmeshed with processes of material change. Discourse at once responds to and enables shifts in social and economic practice." Thus, the development of the language of improvement was itself indicative of the material changes being wrought in the agrarian sphere. In McRae's telling, an older vocabulary tied to feudal power relational systems that no longer held purchase was unable to adequately construe and validate new, increasingly market-force-subjected realities in the

[51] Paul Warde, *The invention of sustainability: nature and destiny, c. 1500-1870* (Cambridge: Cambridge University Press, 2018), 103-4.
[52] John Beale, ed., *Nurseries, orchards, profitable gardens, and vineyards encouraged the present obstructions removed… in several letters out of the country directed to Henry Oldenburg, Esq. … the first letter from Anthony Lawrence, all the rest from John Beale* (London: Printed for Henry Brome, 1677), 3.
[53] Andrew McRae, *God Speed the Plough: The Representation of Agrarian England, 1500-1660* (Cambridge: Cambridge University Press, 1996), 7.

changing countryside: "These shifting realities simply demanded a discourse which would lend an ideological legitimacy to structural change and individual endeavour."[54]

Improvers would not find this legitimacy easily bestowed, as projectors had formerly "improved" many things, notably forests, in ways that provoked a fierce reaction, thereby tainting the term.[55] Intellectual writers on cider were part of this trend. For instance, they were quick to disclaim any profits made from the publishing of their treatises on cider. One sees this in the example of Ralph Austen assuring Samuel Hartlib that upon the distribution of copies of his book to the "Gouernours" of various Oxford colleges, he had in fact been paid nothing, not even a small amount to offset the costs incurred through sending the book to press: "And whereas some consideration might be expected from them towards charge of Printing, I assure you I received not any thing from any of them." Though Austen frequently did try to receive remuneration for his efforts, in the new spirit of his era he never missed an opportunity to plead his poverty, begotten in his telling in service to a greater improvement cause.[56]

As a strategy to forestall comparisons between improver designs and the failed projector schemes of the past, improvers scaled back their ambitions. Improver enterprises were arguably "of a more personal kind at a more experimental stage" and overall exhibited a less bold spirit in the Commonwealth period compared to what came before.[57] If the projectors had come "to stand for the rent-seeker who pretended public service to pursue their self-interest and that of the

[54] Andrew McRae highlights "inflation, a rising population, growing unemployment, an increasingly active property market, and the pervasive influence of a developing market economy" as primary causes of "widespread upheaval" in the agrarian sector. Andrew McRae, "Husbandry Manuals and the Language of Agrarian Improvement," in *Culture and Cultivation in Early Modern England: Writing and the Land*, ed. Michael Leslie and Timothy Raylor (Leicester: Leicester University Press, 1992), 35-36.
[55] Koji Yamamoto, "Reformation and the Distrust of the Projector in the Hartlib Circle," *The Historical Journal* 55 (2012), 397-380.
[56] Hartlib Papers, Letter, Ralph Austen To Hartlib, 2 June 1654, 41/1/70A.
[57] Joan Thirsk, *Economic Policy and Projects: The Development of a Consumer Society in Early Modern England*, (Oxford: Clarendon Press, 1978), 140.

crown at the expense of people's rights and properties," improver writers countered by slimming down or outright ending the monopolistic elements in their requests, publishing their findings openly in pamphlets, encouraging outside verification of results, and paring back requests for funding through new taxes.[58] Though large-scale economic gains, reduced unemployment, and a long list of other benefits, many enumerated below in the context of cider, were typically offered by improvers, nonetheless, the scope and field of these improvements generally "consisted in individual experiments in the private houses, gardens, and fields of gentlemen and parsons."[59]

While part of this retrenchment in ambition can be explained as a reaction against the excesses of projectors, and more still was due to the constrained ability of the state apparatus during the Protectorate to undertake novel projects, an increase in skepticism was also a byproduct of a breakdown of faith in traditional knowledge sources not backed through experiment. This trend made voluminous material from Classical authors potentially suspect. References to ancient sources peppered the works of improver writers, but while some prominent writers thought the "diligence of the Antients" was fit to be emulated in the pursuit of a "list of the particulars either known, or experimented," others were vocal in their opposition to the reliance on such sources.[60] John Evelyn, writer of the forestry masterwork, *Sylva*, represented a more traditional approach and his writing was full of praise for older sources. He wrote of "Learned Columella," took care to note when "Virgil affirms," and used the very names of Classical writers as a personification for brilliant accomplishment, as when he suggested of one promising design to plant trees across the whole country that: "Such works as these would become a Cato, or Varro indeed."[61]

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[58] Yamamoto, "Distrust of the Projector," 380-385.
[59] Thirsk, *Policy and Projects*, 140-141.
[60] John Beale, "Of Variety and Improvements," in *Pomona*, ed. Evelyn, 14.
[61] Evelyn, *Sylva*, 215.

However, basic husbandry knowledge on matters like grafting had advanced past ancient authorities to a degree that John Beale, the primary author of *Pomona*, the cider text appended to Evelyn's *Sylva*, found it difficult to unabashedly embrace such sources. Beale took a more common tack among improver writers, noting when he agreed with older sources but also being quick to point out where his methods and theirs parted ways. References to major agricultural writers such as Palladius, Varro, Cato the Elder, Virgil, and Columella are frequent throughout *Pomona*, but so are Beale's hedges that at times "their wonderful relations… did not so far affect Wonders as to desert the truth."[62] Often, Beale was less circumspect, directly telling readers he "rejected Palladius against the durableness of Perry," for instance, though he was also quick to note when an observation was "confirm'd by Varro" or to offer praise to "sober Columella," and in general he augmented his information with confirmation from ancient sources.[63]

In contrast, ciderist Ralph Austen, who never received a university education, was emblematic of a fiery vein of improvement writing that outright rejected ancient sources in favor of direct observation and experiment.[64] In a private letter to Beale attacking the many failings of Classical sources, Austen was so adamant in his assault that he felt it necessary to apologize for his "bouldnesse and plainesse," excusing his hostility as a testament to his "great zeal for truth, and indignation against Errors."[65] Though clearly at least in part a rhetorical device, his letter was surprisingly direct by the standards of the day. Claiming the falsehoods in old sources were more harmful than new errors for having misled so many more generations, Austen summarized his opposition thusly: "What are Antient Authors, and their great Volumes to be valued, with all

[62] Beale, "Of Variety and Improvements," 16.
[63] John Beale, "Of Stocks," "Variety and Improvements," and "General Advertisements Concerning Cider," in *Pomona*, ed. Evelyn, 10, 15, 36.
[64] See, for instance, Austen's "Errors Discovered" chapter in Austen, *A Treatise of Fruit Trees*, 78-97.
[65] Ralph Austen to John Beale, January 28, 1666. RS RB/3/1/9, 4.

their learning and eloquence if Truth and soundnesse of matter be wanting; old Erroures are not the better for being old, but the worsse, though not in their owne nature, yet as having done more hurt and mischeife." Austen lamented that "the best printers" had "so long suffered the Roman old authors," and included lengthy examples, going author by author, to point out inconsistencies and mistakes.[66] Beale and Austen had a complicated relationship, and though Austen suggested the two were working together for common cause, writing, "I heartily wish wee may set about, and purgue known" errors, a sense of reproach is evident in the letter. Austen wrote this missive to Beale less than two years after *Pomona* was published, and where in that work Beale's writing represented something of a middle ground, this would have been too lenient for the unyielding Austen.

Regardless of whether improver writers were able to escape ancient prejudices, as a collective, they were certainly beholden to current material concerns. Though Baconians at heart, "they were the products, not of deductive reasoning, but of the impact on men's minds of economic problems which urgently demanded analysis and remedy."[67] While a lengthy number of social interests may have excited the passions of improvers, they were nonetheless aware that the success of each project depended on its financial feasibility. Two major long-term economic phenomena exerted sustained pressure to widen the scope of improver thinking: the general accumulation of greater rural wealth than in previous periods and the noticeably diminished price of staple goods beginning in the early 1650s.

The relatively increased economic prosperity of the countryside, which occurred alongside the fierce social dislocation detailed above, allowed for the accretion of "sufficient

[66] Austen to Beale, RS RB/3/1/9, 1-4.
[67] Barry E. Supple, *Commercial Crisis and Change in England 1600-1642* (Cambridge: Cambridge University Press, 1959), 197.

wealth for the ordering of a wide landscape to become frequent if not commonplace, on aesthetic or productive grounds, or both."[68] The expanded scale of action afforded through increased economic means thus led to a corresponding enlargement of the rural mental landscape upon which improvers offered their projects. Higher levels of rural wealth did not always result in rededication to rural pursuits, however. John Evelyn's complaint that agriculturalists' sons were increasingly being brought up to disdain the occupation of farming was typical of a contemporary fear that much of this wealth was being squandered to merely move rural landholders into less rural social spheres. Evelyn complained that "when men have acquired any considerable Fortune by their good Husbandry, and experience… they account it a shame to breed up their Children in the same Calling in which they themselves were educated." These children were instead "bred at School and the University" and taught to care only for coats of arms and estates.[69] Likewise John Worlidge, writing of the "Rustick Art," objected to those vain persons "who judge it below their Honour or Reputation, to take any notice of so mean a Profession; that esteem the Country no other than a place for Beasts, as Cities for men."[70] While Evelyn and Worlidge were identifying a real, if perhaps overstated, problem facing rural development, enough wealth was redeployed back into agricultural pursuits to make the seventeenth century a time of evolving relations between labor and land. At the point in which rural labor became sufficiently divorced from mere "manual drudgery," the landscape itself became a "key metaphor… in the intersecting realms of national, religious, and individual

[68] Michael Leslie and Timothy Raylor, eds., *Culture and Cultivation in early modern England: Writing and the Land* (Leicester: Leicester University Press, 1992), 2.
[69] Evelyn, *Sylva*, xi.
[70] Worlidge, *Systema Agriculturae*, vii.

identity."[71] Indeed, cider improvers were keen to weave all three of these threads together in their arguments for the product.

While this mental shift would have occurred slowly and nearly imperceptibly over time, the quick descent of staple food prices in the 1650s, particularly of grain prices, was only all too noticeable to contemporaries. A common perception was that low grain prices were in fact the direct result of improvement projects. In 1653, a bill was passed to allow the export of grain out of England that directly cited land reclamation as the cause of low prices, or: "a consequence of the improvement of fens, forests, chases and other lands, whereby an excess of corn, cattle, butter, cheese, etc. was being produced." Samuel Hartlib, the most prominent improver writer of the Protectorate, also speculated in his diary that the low prices were a result of fenland drainage.[72] This perception persisted such that improver John Worlidge, writing a generation later, was likewise convinced that "horticultural advances had been so substantial that they were actually a cause of 'the deadness of the market for corn.'"[73] In this matter, improvers were themselves convinced of their own efficacy.

The question arises of whether anyone was paying much attention to improvement writers. Were seventeenth-century landowners actually convinced that "plant husbandry was… the Englishman's most pleasurable labour," and did they turn much attention to these matters in practice?[74] On this score there is some historiographical debate; though more-recent historians have tended to accept the improvers as broadly efficacious in spreading their mindset, paired with frequent acknowledgment that their suggested designs often bore mixed results, not all

[71] Leslie and Raylor, *Culture and Cultivation*, 2-3.
[72] Thirsk, "Agrarian Problems," 175, 181.
[73] Joan Thirsk, *Alternative Agriculture: A History from the Black Death to the Present* (Oxford: Oxford University Press, 1997), 46.
[74] Webster, *Great Instauration*, 465.

historians have always been convinced. Jan de Vries, for instance, has argued the idea of the "improving landlord" is a fallacy, claiming "this idealized view of the English landlord cannot be sustained." De Vries suggests that landlords were absent from their agricultural holdings much of the year and when they were on site most of their focus was on building estate houses and entertaining guests. Where improvement occurred, it was a result of increasing subjection of agricultural laborers to market forces, thus coercing greater performance: "What is left of the improving landlord explanation is the undeniable growth in efficiency in estate administration which ensured that tenants would be spurred to diligence or be replaced."[75]

This maximalist economic view will broadly be contested in this chapter by arguing that widespread adoption of specific cider production methods include instances where political and social goals appear to have directed decisions by cidermakers rather than best economic practices. Thirsk, not a historian known for being unattuned to market forces, helped reorient explanatory frameworks away from purely economic causes in a way with relevance to cider in this era; while long-term trends like food prices and the level of wages and rent are important, these are oftentimes not what moved farmers to act in the immediate term. These forces "only reveal themselves in the long term. Those who pioneer new ways are not necessarily moved by long-term trends they cannot see." Thus, she suggests, it is necessary "to consider more than this one economic explanation."[76]

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[75] Jan De Vries, *The Economy of Europe in an Age of Crisis, 1600-1750* (Cambridge: Cambridge University Press 1976), 78.
[76] Thirsk, "Making a Fresh Start," 16.

IV. "For My Owne and Common Profit": Cider Writers and State Petitions

Cider was endorsed as a political project in ways that display worldview cleavages in its promoters' orientation to the state, Baconian progress, and social hierarchy. The divisions that emerged over cider were surprisingly political and, at times, personal. However, in petitions to the state, one of the most outward-facing categories of sources that attest to cider advocacy by a wide group of writers, there was a high degree of uniformity. Petitions showed consistent eagerness to harness legal coercion to force widespread adoption of fruit-tree planting and cidermaking, sometimes with a degree of self-interest, but often with no obvious motive beyond an apparently genuine belief in the public benefit such measures would bring.

Petitions pushing for wider adoption of fruit-tree planting were not novel to the mid-seventeenth century in England. Previously, Richard Corne's 20 years of travel through Normandy cider country had inspired him to make a proposal close in keeping to what later cider writers would embrace; Corne insisted on an Act that would force farmers to turn one acre of their land into orchards so that the resulting cider would relieve the need to grow barley for beer. In Corne's telling, this land could then be turned to wheat production. Thirsk called Corne "far-sighted" and "unusual" for his period, but proposals such as his would become typical by the 1650s.[77] Neither were petitions like these restricted to fruit trees and cider. Robert Child, for example, proposed to have the state compel landowners to grow flax or hemp on a percentage of their grounds, and in a different context cider writers John Beale and John Evelyn advocated for political remedies to excessive London coal pollution.[78] The relief of pressures on land through a

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[77] Thirsk, *Food in early modern England*, 93-94.
[78] Webster, *Great Instauration*, 477; John Beale, "Letter from Beale to Evelyn, September 22, 1662," BL Add MS 78683, ff. 30.

legislated allocation of its usage was thus an established area where improvers could focus their petitions to increase cider production.

As with so many other categories of support for agricultural improvement in this period, Samuel Hartlib was generally at the nexus of encouraging and facilitating state petitions in the 1650s, though, despite his abilities, these proved exceptionally unsuccessful. Despite the failure of proponents to win their passage into law, the arguments present in these petitions for state intervention are worthy of consideration for the importance the ideas would have as they gestated slowly over the second half of the seventeenth century.[79] Long after cider had ceased to be "an intoxicating subject" in the eighteenth century, the ideas generated in the 1650s and 60s continued to exert a type of moral claim on English consciousness surrounding the drink.[80] What began as holistic cider projects, loosely describable as Baconian in outlook, by the eighteenth century begat a type of proto-nationalistic identification with the drink, particularly in the west country. In part, this explains the ferocious backlash to the 1763 Cider Excise Bill and began a tradition of national consciousness around the beverage that persists to this day.

Ciderist Ralph Austen's prolific petitioning to Cromwell and Protectorate committees were characteristic of Hartlibian proposals, though some contained an elevated degree of personal involvement and self-interest. Having discovered the newly formed Committee for Trade had shown attention to promoting tobacco growing around Gloucestershire, Austen wrote to Hartlib saying he "should be glad having made a Law for supplanting that, they would establish another for Planting fruit trees."[81] Over the course of many letters, Austen and Hartlib

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[79] Joan Thirsk, "Agricultural Policy: Public Debate and Legislation," in *The Agrarian History of England and* Wales, vol. V, *1640-1750*, part 2, *Agrarian Change,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1985), 300.
[80] Vittoria Di Palma, "Drinking cider in paradise: science, improvement, and the politics of fruit trees," in *A Pleasing Sinne* by Adam Smyth, 166.
[81] Ralph Austen, "Letter To Hartlib, August 31, 1653," HP 41/1/46A-47B.

drafted language proposing a new law that would mandate "that vpon every Five pownds per annum of plantable Land, may be planted Tenne Fruittrees of Apple, and Pearetrees, at the least, & so in proportion."[82] This correspondence culminated in a petition to the Council of State, with Cromwell's name hastily crossed out at the last minute, apparently having no time to rewrite the document upon the Lord Protector's death.[83] In the disordered failing days of the Commonwealth, nothing ever came of this appeal. Austen and Hartlib seemed to be aware that they were petitioning into the face of a strong headwind, and expressed their worries that events were overtaking the fragile Republic's ability to focus on matters beyond immediate survival. The First Anglo Dutch War occasioned a worried Austen to note the many "obstructions" existing at that time, "which may giue some occasion to thinke the birth [of their proposals] will proue abortiue, by reason of the inconsistency of such a work, with preparations for Warr." Austen optimistically reframed his proposal to emphasize the timber that would accrue from fruit-tree planting, which would make his petition "appeare fitt either for times of Warr, or peace," but either through disinterest or incapacity this petition was ignored.[84]

Though Hartlib Circle writers were, on the whole, less overt in promoting their individual ambitions than the previous generation of projectors, Austen was not as subtle as some. His proposal to enact a law mandating planting was only one of several petitions, most of the rest of which were baldly self-interested. In one case, he noted his experience in running a large nursery to suggest that the state give him additional land to expand his Oxford-based orcharding operation:

> Such as haue beene Contrivers, & instrumentall in any profitable Publique Designe should be rewarded, & encouraged I should be very glad of some helpe, & more power to

[82] Austen, Ralph Letter To Hartlib Dating: 26 September 1653 Ref: 41/1/52A-53B: 53A.
[83] Austen, Ralph. "Unsigned petition on the improvement of forestry and fruit-tree husbandry," Hartlib Papers 66/22." September 1658.
[84] Letter, Ralph Austen To Hartlib, 7 January 1653, 41/1/14A-15B.

> cary on the great worke I haue in hand: It would I suppose be an easy thing for authority to bestowe some peece of forfeited Land, with encouragement to me to Plant it, for my owne & Common profit.[85]

Austen's petition extended beyond merely asking for free land and included a request for "some convenient allowance whereby I might be enabled to imploy 2 or 3 to assist mee in the worke," which, given the cash-constrained financial situation that dominated the Protectorate period, certainly displayed Austen's boldness.[86]

Such boldness extended to the overwrought language Austen used to describe his lack of petitioning success. In one instance, Austen's unrequited petitions for £100 to defray the costs the printing of his cidermaking masterwork, *A Treatise of Fruit-Trees*, which "hath beene soe long due," led him to claim that he had been denied the "common justice & equity that is distributed even among the Turks."[87] Austen's predilection for seeking personal support from the state was built on previous success of having received a registrar position at Oxford due to his family relationship to Parliamentary General, Henry Ireton.[88] In this position he helped purge the university of recalcitrant royalists, which may explain some of his later difficulties in receiving little apparent support from the faculty for his projects despite distributing copies of his books to these "worthie Masters."[89] Austen apparently widely dispersed his works on cider planting in a bid for support, including sending his books directly to Cromwell and Lord Fleetwood.[90] In a petition to Lord Fleetwood in 1658, Austen referenced the value of these books for "communicating my Experiences therein, for publique profitt," and asked Fleetwood to secure

[85] Letter, Ralph Austen To Hartlib, 30 August 1653, 41/1/44A-45B.
[86] Letter, Ralph Austen To Hartlib, 6 February 1654, 41/1/62A-63B.
[87] Letter, Ralph Austen To Hartlib, 7 September 1655, 41/1/98A-99B.
[88] James Grantham Turner, "Ralph Austen," in *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004).
[89] Letter, Ralph Austen To Hartlib, 6 February 1654, 41/1/62A-63B.
[90] Letter, Ralph Austen To Hartlib, 10 February 1654, 41/1/66A-67B; Letter, Ralph Austen To Hartlib, 24 April 1656, 41/1/108A-109B.

him an “office,” “place of advantage,” or “convenient allowance.”[91] His consistent framing of his proposals as advancing the public good was matched by the regularity with which he mentioned his familial relationship to Ireton.[92]

The lack of success of these petitions was the source of clear frustration to Austen, who alternatingly blamed the paralysis afflicting the nation, “which hath beene hindred through the multiplicity of great Affaires,” and the lack of vision of men “whose minds are Stupid.” Without a trace of irony, Austen accused such men of being “altogeather for themselues, & only present profit,” reinforcing his belief that cider production would only be realized at a proper scale if they were “commanded by a Law.”[93] Austen imagined that the enforcement of such a law would operate in a way that bore striking resemblance to his Oxford registrar position overseeing suspect persons, and one cannot help but think he imagined himself playing a part: “That some fit persons may be appoynted by the Justices of the peace to see the worke donne, & preserved from yeare to yeare as is yearely donne for over seeing of the highwayes in every County: And that there may be a sufficient number of Fruit-trees for this purpose, & persons conveniently skilfull to doe the worke.”[94] Though Austen was particularly prolific in his unsuccessful petitioning, he was far from the only cider promoter attempting to use the lever of state intervention.

Austen was not the only Improver writer who was eager to see his cider knowledge spread widely with state support. John Thomas touched on familiar themes of saving the nation from drinking grain-based alcohol and extolled cider’s economic potential. To expediate the

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[91] Petition, Ralph Austen To Lord Fleetwood, undated [1658], 45/2/9A.
[92] Letter, Ralph Austen To Hartlib, 1 December 1655, 41/1/102A-103B.
[93] Letter, Ralph Austen To Hartlib, undated, 41/1/144A-145B.
[94] Austen, Ralph Letter To Hartlib Dating: 26 September 1653 Ref:41/1/52A-53B: 53A.

production of cider, Thomas petitioned for a law that would pay to have cheaply made fruit-tree manuals printed and distributed to farmers:

> Authors hereof will set forth Bookes so that euery one that holdeth fiue Acres of Land or upwards, may take a booke for his owne use, wherin shall bee plainly showne euery particular thing as followeth, and the price of the booke shall bee but six pence the Cheapest way that can bee thought on for giuing the Nations true Instruction or direction. For First the Bookes shall show how to bring up stocks to graft on. and likewise how to graft them, and how to preserue them in poore dryeland, as well as in any other Land.[95]

Such a design was hardly beyond the realm of possibility, as shown by the case of the most well-known forestry writer of the era, John Evelyn. Evelyn enjoyed state patronage in the form of a Royal Navy commission to produce his arboricultural tome, *Sylva*, and though he had less need to petition for his own surety beyond this, he was nonetheless a proponent of national laws to expand fruit tree planting. Evelyn wrote that "Fruit-trees… would prove of greatest emolument to the whole Nation," and desired to see "that every person whatsoever, worth ten pounds per annum, within his Majesties Dominions, were by some indispensable Statute oblig'd to plant his Hedg-rows with the best, and most useful kinds of them." Such a law would ensure that all common "Country-people" were furnished with sufficient quantities of "Sider and Perry, as should suffice them to drink of one of the most wholesom and excellent Beverages in the World."[96] Alternatively, he envisioned that "an *Act* of *Parliament* might be procur'd for the Setting but of two or three *Trees* in every *Acre* of Land," which would procure the same result of wide cider adoption, ending the sad spectacle of a nation that "drinks its very Bread-corn." Legal prescriptions such as these would offset the problem of unwilling farmers "who are all for the

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[95] John Thomas, "To the Right Honor*a*ble *th*e Counsell of State, The Humble Representation of Ioh: Tho: Gardner," Hartlib papers 62/12/1A, (n.d., c. 1650).
[96] Evelyn, *Sylva*, 101-2.

present profit" and were unwilling to take the capital investment required to plant fruit trees that would not return profit for at least five years.[97]

The problem of tenant focus on immediate profits at the expense of long-term improvement was an acknowledged byproduct associated with insecure leases. Cider proponent and Parliamentary Army Captain Walter Blith exhorted Members of Parliament to pass a law addressing this "obstacle" by mandating that the "Land-Lord should be obliged, either to give [the tenant] reasonable allowance for his clear improvement, or else suffer him or his to enjoy it so much longer as till he hath had a proportionable requitall."[98] In a display of bad timing given the imminent outbreak of war with the Dutch, Blith pointed out that such laws already existed in the Low Countries. Other European laws made similar appearances in cider proponent petitions. A generation later, John Worlidge pointed to the "like examples we finde to be in several Countries, as Spain, Germany, Ve|nice, Holland, &c. of Compulsive Laws, and excellent Customs for the propagation of Trees for Timber, and for Fruits." Worlidge specifically sought to emulate the stipulations mandating the planting of a young tree to replace every tree cut down, and even the withholding of marriage rites until a farmer could prove himself the "father" of a stated number of trees.[99] Such Continental timber laws were not a figment of Improver imagination, and are in fact well attested to.[100]

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[97] Evelyn, *Pomona*, 2.
[98] Walter Blith, *The English improver improved, or, The survey of husbandry surveyed discovering the improveableness of all lands* (London: Printed for John Wright, 1653), vi-vii.
[99] Worlidge, *Systema Agriculturae*, 108.
[99] Beale, "General Advertisements Concerning Cider," xi-xii.
[100] Wallop Viscount Lymington Newton, "Vert and Venery," in *The Nineteenth Century*, vol. 29, ed. James Knowles, (London: Kegan Paul & Co. 1891), 113; Montanari Massimo, *Medieval Tastes: Food, Cooking, and the Table*, trans. Beth Archer Brombert (New York: Columbia University Press, 2012), 107; Warde, *The invention of sustainability: nature and destiny, c. 1500-1870*; Karl Appuhn, *A Forest on the Sea: Environmental Expertise in Renaissance Venice* (Baltimore: Johns Hopkins University Press, 2010).

Though this raft of cider petitions were ultimately unsuccessful, the aims expressed in them were hardly outside the realm of possibility. In fact, from the late sixteenth century through the end of the seventeenth, "countless leases" attest to similar measures being adopted in private contexts. Landowners "required the tenant to plant an orchard of apple and pear trees and to plant hedges, sometimes with apples," and these leases contained similar language found in cider petitions, at times mandating the planting of specific numbers of fruit trees per acre.[101] While improver petitions for state support of large-scale fruit-tree planting were unsuccessful, a Royal Society writer noted in *Philosophical Transactions* the "good effect" of their advocacy in 1676 to add cider to the list of exportable articles, after formerly having been proscribed.[102] Although the petitions detailed above were nearly always unsuccessful, improvers were able to advance their projects more effectively through a different medium of advocacy: cider manuals.

V. Cider Improver Manuals

The amount of writing on cider produced during the seventeenth century is so extensive as to make listing even a representative portion of it here impractical. While there are a few scattered treatises before 1650 that usually mention cider in passing, the 1650s saw major publications on cider by Austen and Beale, and the subsequent three decades included major works by Evelyn, Worlidge, Lawrence, and Haines most notably. These primary figures were increasingly joined by a host of non-specialist writers who felt compelled to include cider in their general writings on agriculture, a process typified by Walter Blith's inclusion of cider in the

[101] Rebecca Roseff, "Origins of Orchards and Cider and Perry in England with particular reference to Cider," in *Landscape Archaeology and Ecology*, vol. 7, *Orchards and Groves; Their History, Ecology, Culture and Archaeology*, ed. Ian D. Rotherham (Sheffield, U.K.: Wildtrack Publishing Ltd., 2008), 123; Thirsk, "Agricultural Policy: Public Debate and Legislation," 344-5.
[102] Thirsk, "Agricultural Policy: Public Debate and Legislation," 345.

1653 *English Improver Improved* rewrite of his original 1649 *English Improver*. This corpus is additionally impressive for what it does not include, in that a number of printed manuals are now lost to us, being known to exist only through advertisements in other pamphlets, for instance.[103] This leaves aside missing copies of unpublished cider and fruit-tree tracts, as in Beale's now apparently lost manuscript book *The True Interest of the Commonwealth of England, soliciting a public care for the plantation and preservation of orchards*, or a manuscript by "Mr. Dawson" that Hartlib noted was "about the planting of trees" and "worth the publishing."[104]

This body of cider writing would have induced production changes first among the gentry and estate managers, but over time it would have influenced common yeomen farmers and "those lower on the social scale."[105] Books by this period were cheap. The gentry, in particular, were much more educated and likely to own books than a century before, and this dynamic extended to those not just in London, but "their relatives in the country."[106] Andrew McRae has effectively demonstrated that such material was not only read by gentlemen, but by lower-order farmers.[107] Around 70 percent of turnip and clover adopters in the 20-year period following 1660 were determined to be literate by Mark Overton, indicating they had the ability to read the corresponding literature on those crops. Overton projected a roughly 40-year interval between turnip and clover adoption by gentry practitioners and later yeoman use.[108] In the case of fruit-tree propagation, supporting manuals began proliferating in the sixteenth century, which would

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[103] Evald Rink, *Technical Americana: A Checklist of Technical Publications Printed Before 1831* (Millwood, NY: Kraus International Publications, 1981), 197.
[104] Beale MS referenced in Webster, *Great Instauration*, xxxvi-ii; Dawson MS referenced in Samuel Hartlib, "Ephemerides, Part 1, 1651," HP 28/2/2B.
[105] Stanley G. Mendyk, *Speculum Britanniae: Regional Study, Antiquarianism, and Science in Britain, to 1700* (Buffalo: University of Toronto Press, 1989), 142.
[106] F. J. Levy, "How information spread among the gentry, 1550-1640," *Journal of British Studies* 21, no. 2 (Spring, 1982): 33-4.
[107] McRae, "Husbandry Manuals and the Language of Agrarian Improvement," 44-45.
[108] Mark Overton, "The Diffusion of Agricultural Innovations in Early Modern England: Turnips and Clover in Norfolk and Suffolk, 1580-1740," *Transactions of the Institute of British Geographers,* vol. 10, no. 2 (1985), 217.

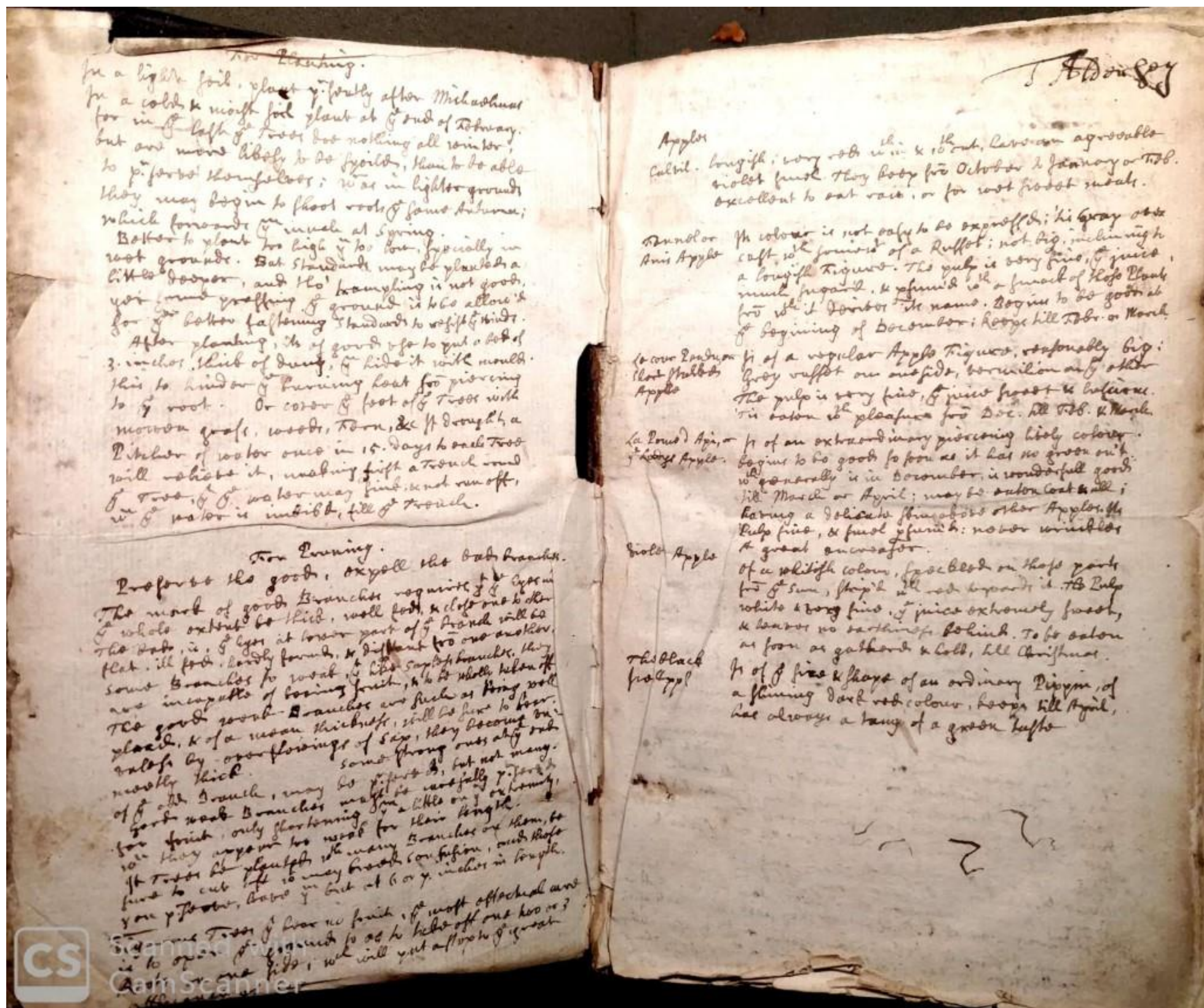

Figure 3.2. "Commonplace book, probably in the hand of William Phelips," (c. 1687). In this commonplace book a Somerset cider producer, William Phelips, excerpted long selections from cider and fruit -tree works such as Evelyn's *Sylva* and *Pomona* as well as Worlidge's *Systema Agriculturae* and *Vinetum Britannicum*, thus demonstrating close reading of such material by those engaged in cidermaking. SRO DD/PH/248

have supported cider expansion efforts by a wide audience in the mid-seventeenth century.[109] One sees examples of diffuse adoption and use of cider manuals in surviving farm records: in the case of a commonplace book from a Somerset farmer and cidermaker, William Phelips, building expenses, sermons, and notes on a local bishop's visitation were interspersed alongside over 50 pages of excerptions from prominent cider books. Phelips included some general agricultural

[109] Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordsire: Authors OnLine Ltd., 2012), 42-3.

observations, but it is clear his two main interests were religious tracts and cider manuals. He took care to not only copy much of the written advice, but also drew a passable copy of a new cider mill designed by John Worlidge.[110]

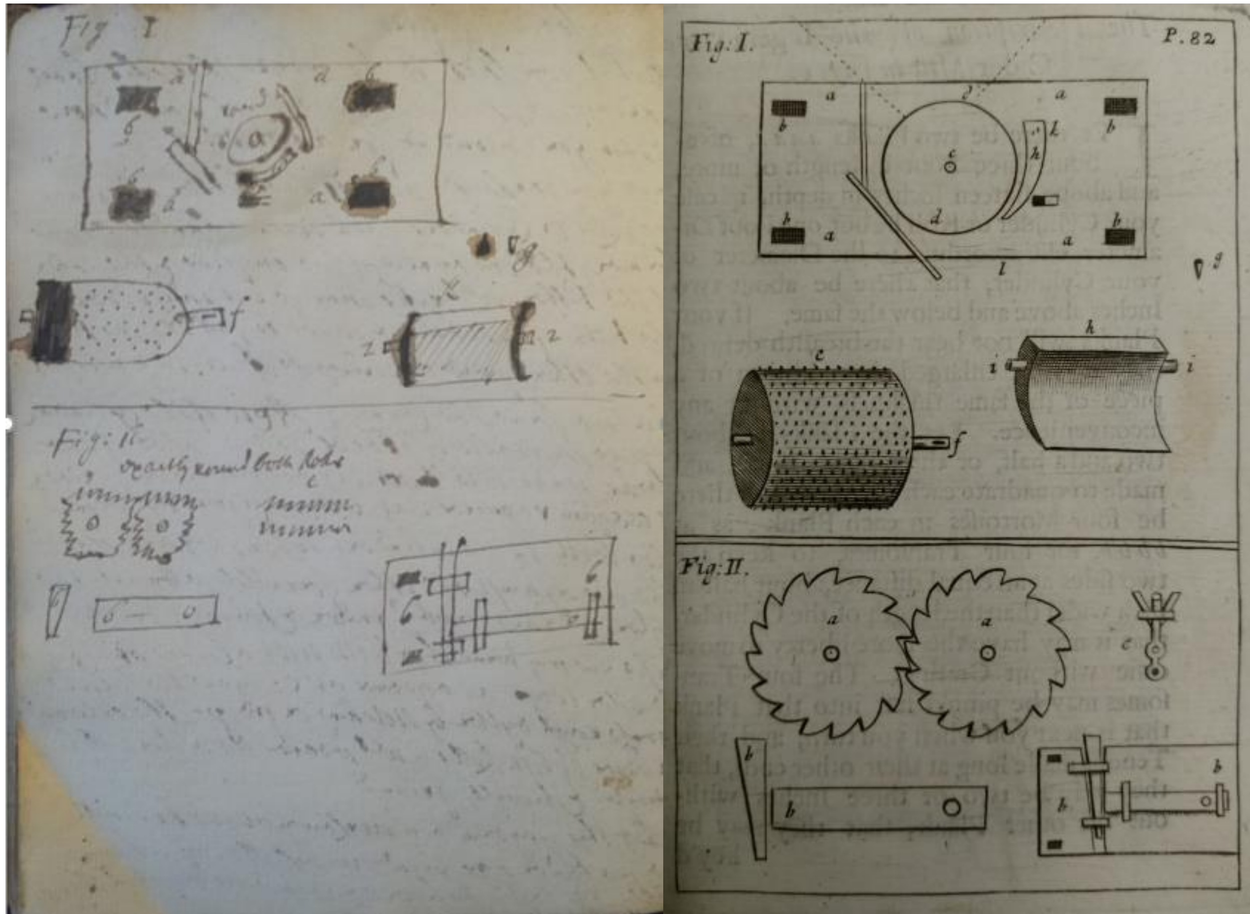

Figure 3.3. Compare William Phelips' commonplace book drawing on the left with John Worlidge's printed illustration of his "Ingenio" cider mill in *Vinetum Britannicum*.

There is also evidence for the use of techniques offered in cider improver literature by farmers of a higher-status background. Richard Reed, for instance, wrote a letter of thanks printed in the Royal Society's *Philosophical Transactions* to *Pomona* cider writers Evelyn, John Buckland, and Paul Neil. Reed enthused his appreciation for the cider advice collected from such writers, writing that he had "pusue[d] those directions exactly" and came away with cider of

[110] William Phelips, "Commonplace book, probably in the hand of William Phelips," late seventeenth through early eighteenth centuries, SRO DD/PH/248.

excellent "Colour and Taste" that was ultimately "the most delicious and luxuriant Cider... that ever I knew."[111] Like John Beale, Reed was from Herefordshire and the two knew each other personally. Beale commended Reed to Hartlib, saying "hee is a very prudent & popular gentleman a Counsellor at Lawe. Excellently skillful in Orchards, & all noble kinds of husbandry. I take him to bee very true-hearted & religious.[112]" Personal connections between cidermakers and cider writers such as this appear frequently in the context of the 1650s and 60s, implying a relatively coherent group, a credit to the networking efforts of Hartlib.

This overlap led to active collaboration between writers. Austen's and Beale's letters to Hartlib frequently reference debates and updated information regarding cider practices. Both Hartlib's *A Designe for Plentie* (1652) and Blith's *Improver Improv'd* (1653) directly noted that they would have included longer sections on fruit trees, but told their readers that the authors were only giving the topic partial treatment because they were aware that Austen was preparing his lengthy two-volume work on that topic: *A Treatise of Fruit-Trees* in 1653 and the second part *The Spirituall Use of an Orchard* in 1657. In the preface to *A Design for Plentie*, Hartlib wrote:

> I am the more willing to divulge this brief Tract upon this Subject, because it will serve as a fore-runner to a larger Volume of Fruit-trees, which an experienced friend of mine, Mr. Ralph Austin hath in a readinesse to put forth at Oxford. Such as have perused Mr. Blithe's *Improver Improved*... will meet with a promise made concerning this *Treatise* of Master Austin's, which now he is putting to the Presse.[113]

Austen in turn repaid this favor by saving his withering criticism from falling too harshly on certain methods contained in a different book by Hartlib. In a lengthy section in *A Treatise of*

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[111] Richard Reed, "Some communications, about an early swarm of bees, as also concerning cyder; descent of sap; the season of transplanting vegetables: sent to the publisher out of Herefordshire by that intelligent gentleman, Richard Reed Esq; in a letter dated March 14. 1672. At Lugwardine," in *Philosophical Transactions of the Royal Society*, vol. 6, issue 70 (March 14, 1672): 2128-9.
[112] Beale to Hartlib, May 15, 1658, 53/59B.
[113] Samuel Hartlib, *A Designe for Plentie, by an universall planting of Fruit-trees: tendred by some wel-wishers to the publick,* (London: Printed for Richard Wodenothe, 1652), iii-iv.

Fruit-Trees titled “Errors Discovered” that was emblematic of Austen’s prickliness, he challenged a range of authors by name, including ancient authorities such as Columella and Theophrastus, but also recent notables like Sir Francis Bacon. He was decidedly more circumspect in disagreeing with authors in Hartlib’s *His Legacie*, however. Austen had previously tried to warn Hartlib in a letter of the “manifest mistaks” spread by cider writer Gabriel Plats, which Austen had detected in draft copies of Hartlib’s work.[114] For unknown reasons, Austen’s warnings went unheeded, and in *His Legacie*, Hartlib relayed Plats’ recommendation that one could add a “Liquour of Cinamon, Cloues, Mace, and sugar” to the roots of a tree so that the fruit will grow to have this essence in its taste. Austen considered this to be rank superstition, but as compared to other parts of his “Errors Discovered” list he mildly related that “some authors counsel” this direction, but that it is a “hurtfull Instruction because liquors… do hinder, (if not spoyle) the joyning of stocke and Graft, but if this might be done without hurt either to stock, or Graft, yet would it be no way effectuall for the End proposed.”[115] Compared to Austen’s usual denunciations, this was a light reproach.

Because cider improver writers were in close contact with each other, they had a heightened sense of the developments and cleavages in cider practice. John Gerard’s *Herball* had represented the height of arboricultural knowledge in 1597, but by 1627 John Parkinson was able to confidently, if respectfully, dismiss Gerard’s short list of apple varietals: “Gerard who is last, hath no doubt given us the knowledge of as many as he attained unto in his time, but since his daies we have had many more varieties, then he or they ever heard of, as may be perceived by the store I have here produced.”[116] Collaboration does not appear to have reduced the range of

[114] Austen to Hartlib, 41/1/98A-99B.
[115] Austen, *A Treatise of Fruit-Trees*, 80.
[116] Parkinson, *Paradisi in sole paradisus terrestris*, xii.

opinions held, but rather only heighted the awareness of them. The collection of cider writers edited and included by Evelyn and Beale into *Pomona* were so discordant that the two of them issued a warning to readers; admitting that although "some of the following Discourses seem less constant, or (upon occasion) repugnant to one another, they are to be consider'd as relating only to the several gusts, and guizes of Persons and Countries, and not to be looked upon as recommended Secrets, much less impos'd." One of these "gusts" was in fact a major debate over whether cider ought to be a high-alcohol estate commodity meant to replace wine, or a lower-strength drink for the common people, and this exposed larger biases about the pace and scope of "improvement" more generally. This specific example will be covered at greater length below.

VI. Major Categories of Claims for Cider: "Unspeakable Pleasure and Infinite Commodity"

Cider was promoted for its supposed ability to accomplish a long list of objectives. Seen through James C. Scott's framework for projects that extended state capacity and aided legibility of resources and people, the major categories of reasons for which cider was embraced are tantalizingly similar to broader early modern state initiatives.[117] The groupings of arguments for cidermaking parallel many of those that Scott lists: the enclosing of wild spaces; relief for the poor; promotion of locally procured goods and a corresponding increase in efforts to tax those products; husbanding strategic resources; and the promotion of a national identity. These arguments are briefly taken in turn here, but before doing so it is necessary to comment on the sheer breadth of benefits that cider writers told their readers to expect.

[117] James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 3.

Improver writer John Smith's bifurcation of the benefits of orchards into "unspeakable Pleasure and infinite Commodity" offers a helpful starting point.[118] Austen incorporated a visual version of this same dual nature into his book's cover illustration, which showed two arms labeled "Profits" and "Pleasures" emerging from clouds with extended hands shaking.[119] Mentions of the pleasurable aspects of orcharding were too frequent to dismiss as trifling, and this extended to a level of reverence that was conspicuously religious in approach, best exemplified by Austen's *A Spirituall Use of an Orchard*. One small feature for John Beale included the "perfuming" of "vernal winds."[120] Indicating early suppositions of tree respiration, he contrasted these sweet smells with actual healthier air, writing that orchards "do not only sweeten, but also purifie the ambient aire, (which I conceive to conduce very much to the constant health and long lives, for which our County hath been always famous)." Beale continued on to include additional orchard benefits for which he was grateful: "they fence our habitations and walks from the stroke of winds and storms in the Winter, and afford us shelter and shade in the heat of summer; and… they harbour a constant aviary of sweet singers."[121] John Worlidge approvingly noted an earlier list of blessings from Hartlib's *Legacie*, writing that the fruit from such orchards "afford curious Walks for pleasure, food for Cattle in the Spring, Summer, and Winter (meaning under their shadow) Fewel for the fire, shade from the heat, Physick for the sick, refreshment for the sound, plenty of food for man… and drink also of the

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[118] John Smith, *England's improvement reviv'd: in a treatise of all manner of husbandry & trade by land and sea: plainly discovering the several ways of improveing all sorts of waste and barren grounds, and enriching all earths...: together with the manner of planting all sorts of timber-trees...* (London: Printed by Tho. Newcomb for Benjamin Southwood, 1673), 204.
[119] Austen, *A Treatise of Fruit-Trees*.
[120] John Beale, "Beale to Henry Oldenburg, August 6, 1671," Letter. *Oldenburg Correspondence, Miscellaneous original letters, etc., addressed chiefly to Henry Oldenburg, Secretary to the Royal Society, by scientific men; 1665-1676*. BL Add MS 4294, ff. 16-17b.
[121] John Beale, *Herefordshire Orchards, A Patterne for all England*, written in an epistolary address to Samuel Hartlib (London: Printed by Roger Daniel, 1657), 7-8.

best; and all this without much labour, care, or cost."[122] The feed for cattle referenced by Hartlib was not from spring fruit falling from trees, but rather the leftover dried pomace from cider pressings the previous autumn. The method of feeding livestock from this resource, or even using it as manure or firewood in fuel-starved areas, was a noted activity in the twentieth century and continues to be practiced today.[123]

Though Austen likewise was willing to list small items such as the "shelter to a house both in winter and summer" that fruit trees provided, he was clear that cider production was the ultimate good of an orchard: "But the great, & generall advantage by Fruittrees is, & would be, by Cider, Pery, Cherry wines etc."[124] Austen imagined the true benefits to the common good would be a result from such cider, and it is to those we now briefly turn.[125]

Cider and Enclosure

Twinned advocacy for enclosure and cider were highly typical in improver literature, going back to ancient Roman sources seeking to maximize estate profits.[126] Cider-fruit trees naturally perform well in marginal soils, making them an ideal option to productively utilize otherwise "wasted" space. They can alternatively be employed alongside other activities when trees are properly spaced: it was common, for instance, to see sheep farming and cider

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[122] Worlidge, John. *Systema Agriculturae*, 99.

[123] Edward R. Emerson, *Beverages, Past and Present: An Historical Sketch of their Production, together with a Study of the Customs Connected with their Use*, vol. 2 (London: G.P. Putnam's Sons, 1908), 166.

[124] Austen, *A Treatise of Fruit-Trees*, 1; Letter, Ralph Austen To Hartlib, (n.d., c.1654), 41/1/144A-145B.

[125] In the course of detailing his proposed law for the "Inclosure and Plantation, of some of the Wast[e], and Common Grounds," Austen claimed the beverage would increase profits ("a chiefe meanes to enrich this *Common-wealth*"); save grain used for beer ("save the expence of *many Thousand Quarters of Mault,* yearely, in the Nation"); reduce dependence on imported wine (the "need to bestow our monies for *French Wines*"); promote health (calling cider and perry the "most healthfull Liquors"); augment timber resources ("great store of *Wood,* would be got for Fuell... *Wood for Joyners,* and many other purposes"); and be good for the poor ("imploying... very many *Poore People*"). Austen, *A Treatise of Fruit-Trees*, iv-v.

[126] Bruning, *Golden Fire*, 18.

orcharding on the same land.[127] The impulse to utilize all otherwise-wasted parts of a farm extended to the choice of rootstock that cider apple trees were grafted onto, which were invariably recommended to be wildings (that is, cultivated apple trees grown from kernels).[128] The fruit from these trees was largely unusable for either cidermaking or eating, making their use as rootstock ideologically appealing to prevailing "attitudes toward wild nature and the reciprocal role of cultivation." [129]

Even before active cultivation of fruit trees in England, apple trees were frequently found on the liminal spaces around farms, often being mentioned "are often mentioned "in boundary charters and so are pear trees."[130] A Somerset lease from the 1570s referenced rights to "all apples and pears in hedgerows or ground called Bye Bottom," for instance.[131] John Norden noted the practice in his 1607 "dialogue," but his character was left to wonder why it was not more widely practiced: "I maruaile, men are no more forward in planting of Apple trees, Peare trees, Crab-stockes, and such like in their hedges, betweene their fields."[132] Other historians have noticed the connection between enclosure and cider. Rebecca Roseff tied the push to enclose Herefordshire to the development of widespread cider in that county, dating the trend back to the fifteenth century.[133] This push would extend well into the eighteenth century, evidenced by a letter to the Royal Society inviting gentlemen to follow the "Example of a Practice that has long

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[127] James Crowden, *Cider, the forgotten Miracle* (East Sussex: Gardners Books, 1999), xiv.
[128] Evelyn, *Pomona*, 7.
[129] Di Palma, "Drinking cider in paradise," 173-4.
[130] Ann Hagen, *Anglo-Saxon Food and Drink: Production, Processing, Distribution and Consumption* (Norfolk: Anglo-Saxon Books, 2006), 56.
[131] SRO DD/X/RMN/3
[132] John Norden, *The surueiors dialogue: very profitable for all men to peruse, but especially for all gentlemen, or any other farmar, or husbandman, that shall either haue occasion, or be willing to buy or sell lands*... (London: Printed by I. W[indet] for I. Busby, 1607), 208.
[133] Roseff, "Origins of Orchards and Cider and Perry in England," 126.

obtained in Herefordshire, to attempt an Improvement of their waste Lands, by planting such kind of Fruit trees, as are mentioned, in Hedges and barren Places."[134]

Stuart Davies highlighted Evelyn's advocacy for common field planting of cider trees but noted that "cider orchards were more commonly found where early enclosure of the common fields had already been achieved." [135] Evelyn was an ambiguous proponent of common-field planting at best, enthusiastically embracing cider in hedgerows in *Sylva*. Here he commended:

> That honourable Person my *Lord Ashley,* who has taught us to make such Enclosures of *Crab-stocks* onely, planted close to one another, as there is nothing more impregnable and becoming; or you may sowe *Sider-kernels* in a *rill,* and fence it for a while with a double *dry Hedge,* not onely for a suddain and beautiful, but a very profitable *Inclosure*; because, amongst other benefits, they will yield you *Sider-fruit* in abundance."[136]

Generally, cider writers were enthusiastically in favor of enclosure as a high form of improvement—the "highest" form for Worlidge—and recommended cider tree planting in hedgerows to facilitate the process. Worlidge wrote: "Enclosing of Lands… hath been ever esteemed a most principal way of Improvement… It capacitates all sorts of Land whatsoever for some of the Improvements… so that a good husband may plant Timber, Fruit, or other Trees in his Hedge-rows."[137] Though these writers were nearly all in favor of enclosure, one can glimpse some of the opposition to enclosure they encountered through their writing. In describing the relative lack of enclosure around Cambridge compared to Oxford, Anthony Lawrence spoke of using fruit trees in hedgerows almost as a ploy to beguile adoption of the practice: "For, if any

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[134] Henry Miles, "Extract of a letter from the Reverend Henry Miles, D. D. & F. R. S. to the President, relating to some improvements which may be made in cyder and perry," in *Philosophical Transactions of the Royal Society*, Vol. 43, Issue 477, (January 1, 1744), 516.
[135] Stuart Davies, "'Vinetum Britannicum': Cider and Perry in the Seventeenth Century" in '*Liquid nourishment' : potable foods and stimulating drinks,* ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993), 96-97.
[136] Evelyn, *Sylva*, 98.
[137] Worlidge, *Systema Agriculturae*, 10.

Expedient can invite the Champain-Countries, that are about Cambridge, to Inclosures, I think, Orchards, Gardens, Nurseries, and Groves, are most likely to do it."

The divisions among cider writers based on sympathies to different English social orders do not seem to have been reflected in their opinions towards enclosure. Lawrence, for instance, was doggedly against the "gaudy gallants" and "Prodigals [who] do precipitate our Ruine by their wasts upon Forain Vanities and superfluities," but was typical of cider writers in his estimation of common fields as "little better than waste-grounds."[138] Worlidge anticipated arguments that enclosure would be bad for the poor, writing that the pernicious effects would be "doubly repaid by the fruitful crop it annually yieldeth" and that the lands would "generally maintain treble the number of Inhabitants."[139] Austen was particularly attuned to the social dislocation enclosure would occasion, as he proposed yet another law to facilitate the dissemination of common fields to the poor, who should "have their proportions." He wanted to see such "Riches, and Lands of Inheritance [distributed] to those who are not now worth a Groat. For in divisions, and inclosures of Wast, and Common Grounds, (by Persons appoynted for that purpose,) why should not the Poore have their share, and proportion, as well as their rich Neighbours."[140] As with many other laws proposed by Austen, his personal interest was never far out of the picture. An effort by him to utilize a large portion of Shotover Forest for orchard grounds had previously failed "because he could not afford to buy out the villagers who had

[138] Anthony Lawrence, *Nurseries, orchards, profitable gardens, and vineyards encouraged the present obstructions removed, and probable expedients for the better progress proposed, for the general benefit of His Majesties dominions, and more particularly of Cambridge and the champain-countries and northern parts of England : in several letters out of the country directed to Henry Oldenburg, Esq. ... / the first letter from Anthony Lawrence, all the rest from John Beale* (London: Printed for Henry Brome, 1677), 8-9, 13-4.
[139] Worlidge, *Systema Agriculturae*, 11.
[140] Austen, Ralph Letter To Hartlib Dating: 26 September 1653 Ref:41/1/52A-53B: 53A; Austen, *A Treatise of Fruit-Trees*, v.

commons rights there."[141] Austen's concern for the poor was thus directly related to his desire to receive state financing to buy their common-land rights.

The dedication by cider writers to enclosure is one area where ideology preempted economic logic. Writers readily agreed that apple trees grew best in rich soil, but they advocated planting cider fruit in the marginal areas on farms so as not to limit the supply of grain available to the nation. Thus, while Beale recommended planting cider trees in good soil, he explicitly told his reader this did not mean they should plant on "fat land" usable for wheat: "For fat land is not best for *Cider*-fruit, but common *arable*… And for *Gardens, Flowers,* and *Orchards,* I would chuse many times such lands as do not please the *Husbandman,* either for *Wheat* or sweet *Pasture,* which are his chief aims."[142] Utilizing wasted spaces for orcharding would be economical, naturally, but consistent suggestions by cider writers against planting in soils usable for staple crops suggests a larger improver goal that went beyond immediate profits. As the seventeenth century progressed, however, farmers increasingly dispensed with this ideological advice in favor of cultivating valuable cider fruits on whatever land was available.[143]

Cider and Poor Relief

By planting in the marginal spaces around a farm, apple orchards would be subject to the depredations of passers-by who could more easily steal the fruit. This presented a thorny issue for those who emphasized hedgerow planting and divided cider writers on their outlook towards the function of cider in regard to poor relief. For many writers, the availability of such fruit to the

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[141] James Turner, "Ralph Austen, an Oxford Horticulturist of the Seventeenth Century," in *Garden History*, vol. 6, no. 2 (Summer, 1978): 39.
[142] Beale, *Pomona*, 32-33.
[143] "The orchard expansion of these decades appears to have been almost entirely at the expense of the arable in the west country, the good and the more marginal arable disappearing alike." Harrison, "The South-West: Dorset, Somerset, Devon, and Cornwall," 384.

poor was a desirable feature of hedgerow planting, not an impediment. These authors argued that fruit being available to the poor in this manner would form a bulwark against famine in dear years, while if enough planters filled their hedgerows with fruit it would not matter if some was taken by hungry mouths. Evelyn thus wrote: “Had all our *Commons,* and *Waste-lands* one *Fruit-tree* but at every *hundred foot* distance, planted, and fenc'd at the publick charge, for the benefit of the *Poor,* enough would escape able to maintain a *Stock,* which would afford them a most incredible relief.”[144]

Others, notably Beale, thought about this problem from a very different perspective, actively encouraging farmers to adopt methods that would make theft of hedgerow apples impractical. Thus he recommended the use of harsh cider apples that were high in tannins and largely inedible: “for this Cider, while we prefer some sorts of Wildings which do not tempt the palate of a Thief, by the caution we shall not provoke any man to repent his charge from the necessity of richer and more reserv'd Enclosures.” Beale continued on, wishing for a national law that would protect those types of fruit that were edible and grown in accessible places, showing little interest in allowing the poor direct access to these fruits of farmer labor.[145] In one instance, Beale recommended an apple varietal to Hartlib known as the “imny winter,” which was “of noe use but for cider, & if a thiefe steale it, hee will incur a speedy vengeance, for tis a furious purger.”[146]

The problem of poor relief was acute for improvers during the seventeenth century, thus explaining the amount of attention it generated for cider boosters. Improver writers were self-consciously aware of the leaps forward taking place in agriculture, and yet it was apparent that

[144] Evelyn, *Pomona*, 2.
[145] John Beale, “Of the Place and Order,” in *Pomona*, ed. Evelyn, 20-21.
[146] Beale to Hartlib, May 15, 1658. 52/56A-59B.

these advances were occurring in the context of increasing immiseration of the poor. Keith Wrightson attributes this plight to the combined forces of a rapidly expanding population, increasing inflation, and "catastrophic harvest failures" in 1586, 1594-8, 1623-4, 1630, and 1646-9, which together produced growing hardship, leading to uncomfortable binaries for improver writers: "Agricultural improvement and agrarian distress, increased production and widespread deprivation, undoubted prosperity and equally striking impoverishment."[147]

Cider was lauded for providing relief to the poor in multiple ways. Austen highlighted the increase in available firewood fruit-tree growing would afford, writing in a petition to the Council of State that cooking and heating fuel "is now (in very many parts) exceedingly scarce and deare: many poore people are almost starv'd in cold long winters, who hereby might have sufficient to refresh themselves."[148] Cider was also more generally part of the goods given to the poor at times, unlike in the modern era when alcohol distribution to the unfortunate is frowned upon.[149] However, the primary relief offered came in the form of access to picking fruit as a common-use right, as mentioned above.

John Gerard was similar to Evelyn in his appraisal that some fruit being taken by the poor would not be a great loss and would be beneficial to those in need. He acknowledged widespread fears by would-be cider planters over loss of fruit by theft, however he framed this fear as an outgrowth of envy and pushed growers to forge ahead nonetheless:

> An example doubtles to be followed of Gentlemen that have land living: but envie saith, the poore wil break down our hedges, and we shall have the least part of the fruit but forward in the name of God, graffe, set, plant and nourish up trees in every corner of your grounds, the labour is small, the cost is nothing, the commoditie is great, vour selves shall

[147] Wrightson, *English society, 1580-1680*, 1982, 121-2, 125, 143, 146.
[148] Ralph Austen, "unsigned petition on the improvement of forestry and fruit-tree husbandry," (1658) Sheffield University Library, Hartlib Papers 66/22."
[149] For a French example of this practice see: George M. Musgrave, *A ramble through Normandy; or, Scenes, characters, and incidents in a sketching excursion through Calvados* (London: D. Bogue, 1855).

have plenty, the poore shall have somewhat in time of want to relieve their necessitie, and God shall reward your good mindes and diligence."[150]

Authors would often try to argue both sides of the poor relief question, sometimes in the same tract. Thus, Worlidge was at times in favor of some amount of fruit being available to the poor but was also glad to tell his readers that the abundance of apples would be present for only a narrow window of weeks, thereby limiting the loss. He further observed the farmer could always plant cider apple varietals that "are not very inviting, and yet as profitable to the Planter." However, he also compared fruit loss to the poor to tithing, writing that only a rustic fool would fail to grow crops to "deny himself the nine parts, because the Parson should not have the Tenth."[151] Austen's ostensible concern for poor common-field users did not extend to his desire to share his orchard apples, apparently, as he recommended keeping "a lusty Mastiffe or two" on hand to protect the crop. Austen further impressed his opposition to thieves stealing apples by relating to his readers the "affliction and terrors of conscience" that had haunted him ever since his youth when he had robbed an orchard of fruit.[152]

In one respect, however, cider writers found unanimity in their advocacy for the poor; they shared a belief that replacing grain-based alcohols was a desirable end, and they often framed the replacement of beer with cider in terms of how it would help keep bread prices low. Thus Walter Blith advocated wide planting of apples and pears to "relieve it in such a yeare of Scarcitie as this is like to be; If it would not be Bread to the Poore, as it might be in some measure, I am sure it would be Drinke, and how much Barly would that preserve to Bread-Corne that is now turned to Mault."[153] Writing in 1649, Blith was correct to worry about the coming

[150] John Gerard, *The Herball or Generall Historie of Plantes* (London: John Norton, 1597), 1275.
[151] Worlidge, *Systema Agriculturae*, 98.
[152] Austen, *A Treatise of Fruit-Trees*, 4, 5.
[153] Blith, *The English improver, or, a new survey of husbandry discovering to the kingdome...* (London: Printed for J. Wright, 1649), 160.

harvest. This concern would increasingly become detached from the reality of low grain prices over the next century, though memories of failed harvests continued to leave their mark in cider improver literature for decades to come.

Cider as an Alternative to Grain-Based Alcohols

Bread was highly important to early modern agricultural laborers and was "what most graced the tongues of peasants, preachers and politicos, both literally and metaphorically. Bread was everywhere: in dreams, sermons, speeches, banter and bellies..."[154] In famine years, brewers and maltsters were the objects of hatred and envy by those who saw them turning scarce grain into beer. These men became the "principal targets of magisterial action," reflecting attempts by authorities to assuage popular disturbances. Petitions against magistrates who licensed malt making in lean years took on an anti-royalist character during the 1640s and alehouses were shuttered by authorities in the face of high grain prices.[155] Prior to this period, the "Books of Orders" had been used in Elizabeth's reign to suppress brewers, maltsters, and taverns.[156] During years of grain scarcity, officials mandated beer to be brewed with oats rather than barley, so that more barley would be available for bread.[157] Maltsters and brewers were particularly distrusted members of rural society because they were generally in such an advantageous economic position. Their "powerful position" was due in part to their proclivity to purchase grain ahead of time, letting them take advantage of good prices before harvest failures materialized.[158] They used this influence to skirt around laws during periods of famine that would have curtailed their

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[154] Warde, *The invention of sustainability: nature and destiny*, *c. 1500-1870*, 18.
[155] Hindle, "Dearth and the English revolution," 74, 79-83, 86.
[156] Alan Everitt, "The Marketing of Agricultural Produce," in *The Agrarian History of England and Wales*, vol. IV, *1500-1640,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1967), 584.
[157] Thirsk, *Food in early modern England*, 63.
[158] Everitt, "The Marketing of Agricultural Produce," 556.

grain using activities, which in turn bred more mistrust. Steve Hindle noted the case of parliamentary discussions in 1621 where "the commons debated a bill, probably prepared by Francis Bacon, to prevent maltsters, brewers, and tipplers from being appointed to the commission of the peace." In extreme cases this antipathy towards rural brewers and maltsters broke into open disturbances. During bread riots in Wiltshire in 1647, "Two carriers complained… they had been 'surprised and the said corn and malt taken from them by a turbulent multitude.'" Hindle highlighted a subsequent warning sent the next year by local inhabitants threatening that "unless malt-making was more closely regulated, the… 'uncivill actions' they had recently witnessed would be repeated, a warning that provoked an anxious county-wide order about the prevention of tumultuous assemblies."[159]

Cider writers took full advantage of this rural discontent with beer making. Worlidge claimed that acre-by-acre, orchards produced more beverage than grain production:

> [Cider] must necessarily bring a very considerable advantage to the whole Kingdom in general, because a far greater quantity of Syder is usually produced out of an Acre of Land in one year, than can be made of the Barly growing on an Acre, and much less cost and trouble in the preparation; so that if but a small part of every Farm were planted for Syder, much of the Barley-land might be converted to other uses, which in the end would be a National Improvement and advantage.[160]

Austen similarly highlighted this desired end, prophesizing that "If men would plant store of Fruit-trees, then many, thousands Acres of Land sowed yearly with Barley, might be sowed with Bred-corne, or turned into Pasture-grounds."[161] However, as grain prices stabilized after 1650 at levels that lessened the bite of such arguments, cider writers found themselves responding to the very opposite problem. Writing in 1684, Richard Haines felt compelled to respond to fears that widescale adoption of cider had depressed grain prices to an extent that was hurting farmers.

[159] Hindle, "Dearth and the English revolution," 86-91.
[160] Worlidge, *Systema Agriculturae*, 99.
[161] Letter, Ralph Austen To Hartlib, (n.d.), 41/1/144A-145B.

Haines' answer proved his cider booster credentials, in that he advised barley farmers to plough up their barley fields and turn them into orchards instead:

> Those whose Lands are Imployed in Raising of Barley, will fear that by this Expedient Rich Liquors will be so plenty and Cheap... That Beer and Ale will be neglected; And consequently, they will in some measure lose their former Benefit arising by Barley. To this I Answer;... Most Lands kind for Barley, are proper for such [cider] Plantations, and the Owners thereof, as well as others, may make the like Profit in this way, and much more than they did by Barley.[162]

A distaste for beer and beer making seemed to have persisted well past the point where grain prices gave cause for such sentiments. John Smith's 1674 letter to the Royal Society hailed the "salubrity of cider" as contrasted to his "disgust" occasioned by the "mischances of Beer, by ill brewing, or sooty malt, dryed on wood-fires, &c."[163] John Evelyn, another writer who exhibited disgust at the smoke caused by brewing, looked forward to the day when "the preference of *Cider,* wholesom, and more natural *Drinks,* do quite vanquish *Hopps,* and banish all other *Drogues* of that nature."[164] As alluded to in the last two examples, cidermaking not only relieved pressure on grain prices, but on timber usage as well. This concern dovetailed with a long-standing improver interest in timber preservation.

Cider as Timber Preserver

Austen estimated that brewing consumed "many thousand Lodes of wood in making Mault" in this period, making it a prime target for an older tradition of timber improvement writing.[165] Though not a significant concern in his period, distilling would also use large amounts

[162] Haines, Richard, *Aphorisms upon the new way of improving cyder, or making cyder-royal…* (London: Printed by George Larkin for the author, 1684), 8.
[163] R.B.E., "An accompt of some books… Mr. John Smith's Englands Improvement revived, in a treatise of husbandry and trade, by Land and Sea, &c.," in *Philosophical Transactions of the Royal Society*, vol. 9, issue 103 (January 1, 1674): 57.
[164] Evelyn, *Pomona*, 1.
[165] Austen, "unsigned petition on the improvement of forestry and fruit-tree husbandry," HP 66/22.

of wood in later years compared to cider production. Historians such as Webster have noted a long list of improvement literature from this period on timber preservation, and Thirsk has compiled a raft of measures that were adopted from 1649 through the mid-1650s to combat perceived shortages, indicating that a timber crisis was very much on the minds of Commonwealth officials.[166] Contemporaries often believed Britain had been covered in forest in the recent past, leading to heightened fears.[167] Increased resistance by commoners living in England's remaining forests became bolder during this period, as reactions against timber expropriations combined with concerns about searches for "concealed land" and fenland drainage, lending to a sense of crisis.[168]

Some historians, such as Richard Grove, have tended to minimize timber concerns during the Commonwealth and Restoration periods, pointing to a relative lack of legislation on the topic after the mid-1650s, with the partial exception of the 1668 Forest of Dean Act, which restricted timber cutting.[169] Grove pointed to the comparatively large impact that Evelyn's *Sylva* made in France in his dismissal of English concerns, but his focus on official legislation leads Grove to miss the fact that significant successful timber efforts in England were undertaken in the private sphere. The widescale diffusion of cider should be understood as part of this enterprise, and the notable seventeenth-century boom in English cider production was given greater impetus as a result of such timber fears.

Cider production did necessitate some timber usage, potentially opening it to charges similar to those faced by beer, though I have not come any records indicating this accusation was

[166] Webster, *The Great Instauration*, 470-77.
[167] Warde, *The invention of sustainability: nature and destiny*, *c. 1500-1870*, 65-72.
[168] Thirsk, "Agrarian Problems" 1,76, 179.
[169] Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 1995), 56-60.

levelled. Not only were the casks made of wood, but they were typically further sanitized with a "mixture of brimstone, burnt alum, and water, melted over hot coals," a process that used additional wood.[170] The amount of timber used in cider casks must have been considerable. Not only do port books, probate records, and excise accounts attest to the large volumes of wooden barrels used to transport cider, but one finds glimpses of the ubiquity of these vessels in all manner of documents. Thus, when the steeple in Westbury-on-Severn parish in Gloucestershire needed repairs in 1664, churchwardens there kept extensive records of the great number of casks of cider given to cover these expenses.[171] These were the same types of vessels used to transport and keep other beverages too, of course, and in general cider production utilized far less timber than beer brewing or spirit distillation.

In addition to a production process that used less wood, the spread of new fruit trees also provided a boon in timber in of themselves. Cider fruit trees provided wood fuel after they became unproductive, and both pear and apple wood were appreciated for their use in making furniture that was thought to be "better than can bee made of Common kinds of wood."[172] Beale extolled one type of cider pear for its "excellent colour'd Timber, hard and levigable (seldom or not ordinarily worm-eaten) especially for Stools, Tables, Chairs, Pistol-Stocks, Instrument-Maker, Cabinets, and very many works of the Joyner."[173] Ralph Austen, ever on the lookout for ways to induce Parliamentary cooperation in spreading cider production, admitted in private that timber planting was probably a higher priority in the short term, at least for Parliament, even though he thought cider was ultimately better for England: "Concerning our designe about Fruit-trees; I doubt not that if the thing be well weighed, it will appeare to be well deserving the

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[170] John Ulric Nef, *The Rise of the British Coal Industry,* vol. 1 (Hamden, C.T.: Archon Books, 1966), 215.
[171] "Churchwardens' accounts," GRO P354/CW/2/1 (1664-1774).
[172] Austen, "unsigned petition on the improvement of forestry," HP 66/22.
[173] John Beale, "Of Pruning and Use of the Fruit-Trees," in *Pomona*, ed. Evelyn, 24-5.

consideration of the Parliament; although it be granted that planting for Timber be more necessary." Strategic deployment of arguments to Parliament aside, he concluded the thought by reminding Hartlib that ultimately it was "Cider wherein would be the greattest advantage."[174] While cider was thus appreciated for its timber preservation capabilities as compared to beer, a significant contingent of improver writers had another alcoholic drink in mind that they hoped to replace: wine.

Cider as Wine Replacement

The growing of "English wine," which for many in the seventeenth century was a shorthand for cider, is best understood within the broader context of a concerted effort to grow wine from grapes during this period. For climactic reasons contemporaries did not comprehend, England was no longer a suitable area for grape cultivation by the seventeenth century. Improver writers were painfully aware that wine production had formerly been robust in England, as it was regularly attested to in sources dating as far back as the Roman period. However, vine growing "virtually disappeared in Britain" by 1440, and climactic events such as the volcanically induced, extremely cold winter of 1601 would have devastated any vines that survived into the early seventeenth century.[175] Contemporaries would not have grasped the general trend in temperatures, but instead would have understood these particularly cold winters in the broader context of *wonders*. William Cavert has argued that Geoffrey Parker was wrong to argue that these cold spells would have been understood by contemporaries in moral terms of divine retribution, however they understood the lack of viticulture in moral terms of a different sort.[176]

[174] Letter, Ralph Austen To Hartlib, 10 October 1656, 41/1/119A-120B.
[175] Brian Fagan, *The Little Ice Age: How Climate Made History, 1300-1850* (New York: Abe Books, 2000), 84, 104-5.
[176] William Cavert, "Winter Wonders: Explaining Hard Frosts in England during the Little Ice Age," unpublished workshop paper presented at the *Neubauer Collegium for Culture and Society, The University of Chicago, Climate*

Seventeenth-century improvers consistently bemoaned the lack of progress in English wine growing, attributing it to the general failings of the country's farmers rather than the crop's unsuitability to England. Writing in 1577, William Harrison foreshadowed such sentiments and claimed that wine had formerly "been very plentiful in this island, not only in the times of the Romans, but also since the Conquest, as I have seen by record; yet at this present have we none at all, (or else very little to speak of), growing in this island, which I impute not unto the soil, but the negligence of my countrymen."[177] Richard Carew promoted the "fitnesse of some grounds standing upon lyme stones," in Cornwall for the growing of vines, in 1602, claiming the area had "Yet one speciall priuiledge, which [is] the neerenesse to the South," thus demonstrating improver writers were aware of England's limitations beyond a particular latitude.[178] In 1674, Carew Reynell represented a later generation that had not yet given up on such attempts. He optimistically forecasted that the planting of English vines would "would do abundance of good in saving Foreign Wines," claiming that England's "ground is as good as theirs."[179] Some small amounts of wine were undoubtedly still grown in England, and Reynell claimed to have tasted them, but for the most part promoters of English "wine" turned to cider.

As seen in Reynell's complaint about foreign wines, one of the primary considerations at hand for those who sought to raise cider to be a competitor with wine was a mercantilist impulse aimed at reducing foreign imports.[180] Both Evelyn and Beale offered separate stories of instances

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Change: Disciplinary Challenges in the Humanities and Social Sciences Working Group (January 2017): 7; William Cavert, "Winter and discontent in early modern England," in *Governing the Environment in the Early Modern World: Theory and Practice*, ed. Sara Miglietti and John Morgan (London: Routledge, 2017), 114-134.

[177] William Harrison, *Description of England*, ed. Georges Edelen (Washington, D.C.: Folger Shakespeare Library, [1577] 1968), 264.

[178] Richard Carew, *The survey of Cornvvall* (London: Printed by S. S[tafford] for Iohn Iaggard, 1602), 21.

[179] Carew Reynell, *The true English interest, or, An account of the chief national improvements: in some political observations, demonstrating an infallible advance of this nation to infinite wealth and greatness, trade and populacy, with imployment and preferment for all persons* (London: Printed for Giles Widdowes, 1674), 31-32.

[180] Di Palma, "Drinking cider in paradise," 163.

where wine merchants in London or Bristol supposedly had agreed to wagers pitting their finest foreign wines against either a "good Restrake" cider or "a liquor compounded of crabs and wild peares." In both cases the cider was invariably judged to be the winner.[181] Whether the stories were literally true or literary devices used to make a point, the importance of these accounts is shown in the authors' need to prove cider's credentials compared with wine. Notes from the Royal Dublin Society nearly a century later showed cider aficionados were still making the direct comparison, arguing cider was the equivalent to wine in more northernly environments: "In its highest Degree of Perfection this Cyder is not inferior to the Juice of Grapes, and seems to be bestowed by Nature upon these Northern Countries as a full Equivalent."[182]

As England's frictions with Continental rivals continued in the second half of the seventeenth century, particularly in the case of France, wine's reputation seems to have suffered. Noted wine scold John Evelyn contrasted the supposed healthiness of cider compared to wine, which was imbibed for mere reasons of status:

> To sum up all: If Health be more precious than Opinion, I wish our Admirers of Wines, to the prejudice of Cider, beheld but the Cheat themselves; the Sophistications, Transformations, Transmutations, Adulterations, Bastardizings, Brewings, Trickings, not to say, even Arsenical Compassings of this Sophisticated God they adore; and that they had as true an Inspection into those Arcana Lucifera, which the Priests of his Temples (our Vintners in their Taverns) do practise; and then let them drink freely that will; ---Give me good Cider.

Beyond the morally and religiously freighted language, some of Evelyn's complaints allude to the problems facing English wine drinkers at the mercy of multiple middlemen, specifically his allusions to nefarious tampering that impacted wine quality by trying to stretch the commodity's volume further or revive spoiled product. Increasingly, due to war and heavy taxation, wine was

[181] John Beale, RS-RB/1/29/10, 'Of Cyder and Winy Liquors'. April 9, 1658; Evelyn, *Pomona*, 7.
[182] Royal Dublin Society. *The Dublin Society's Weekly observations. [Dublin [Ireland]]], [1737-1738]. Social Sciences*, No. XXIII. Tuesday, June the 7th, 1737, 149.

a favored article for smuggling, which no doubt increased rates of adulteration. Evelyn was thus relieved at what he called the "Modern Invention" of cider that had been brought up to wine-like quality, creating an "excellent Liquor" of "strong and generous vigour." [183]

In the 1680s and 90s, ciderists received a boost in the form of exceptionally heavy taxes leveled on French wines. "French wines went from being the least taxed, least expensive and most often consumed wines... to being the most taxed, most expensive and, while not the least consumed, the most often illicitly traded wines by the 1690s."[184] Ciderists of the previous generation had pushed for such an outcome. Without any trace of recognition that he was writing to a foreigner who had made England his home, Austen communicated to Hartlib that if a nation intended to "preserve, & maintaine it selfe, from forrainours, & be able to live without them, should wisely, & diligently set it selfe on worke in all profitable waies, & designes, whereby to have enough of all necessaries for mans life within it selfe."[185] Cider writer John Worlidge was happy to see wine thus impacted by high tariffs and was hopeful his instructions would lead cider to more generally "supplant the shallow credit of the sophisticated exotic blood of the Grape."[186]

Poems written to cider's glory and wine's diminishment give some illustration of the degree to which people felt their allegiances to particular drinks, especially when put into a national context. In his 1694 "A New Song in Praise of our English Wines," Edmund Spoure placed cider, perry, and berry wines together against wine:

> Let's tipple, and drink up more sack/ that's made of the berrys, are black/ drink about, and don't tremble/twill make our wits nimble/the vine is a shrub to the bramble/… Then let all forrain Liquors be dam'd/ Which so long have poyson'd our Land/ Let French Wine be spilt/That Consumer of Guilt/Since such store of our own we've at hand/… A

[183] Evelyn, *Pomona*, 4, 8.

[184] Charles C. Ludington, "'Be sometimes to your country true': The Politics of Wine in England, 1660-1714," in *A Pleasing Sinne*, ed. Adam Smyth (Rochester, N.Y.: D. S. Brewer, 2004), 92.

[185] Letter, Ralph Austen To Hartlib, 7 January 1653, 41/1/14A-15B.

[186] John Worlidge, *The most easie method for making the best cyder* (London: Printed for George Graston, 1687), A3.

> pox go with Clarett, a Thousand curses/Thou great Debaucher of bodys, and purses/ Instead of thee, we freely will choose/ That pritty fine tasted, brisk apple juice/ God prosper old England, and long may we live/ Contented with what her bounty dos give.[187]

As this poem suggests, cider's transformation from a relatively unknown regional crop into an icon of *Englishness* was largely realized by the end of seventeenth century. This was neither accidental nor a product of mere quantitative volume of the commodity made but was a conscious choice of emphasis by mid-seventeenth-century cider boosters.

Cider as a National Drink

In the seventeenth century, beer was "sometimes heralded as the 'English' drink *par excellence*, thus gaining a patriotic significance."[188] By the eighteenth century, gin and rum, while lacking some of the positive connotations associated with beer, also became tied to a sense of *Englishness*, and estimations of these and other beverages' desirability and character changed over time. In the sixteenth century, for instance, hopped beer had been inveighed against for "economic, moral, and xenophobic" reasons, but by the nineteenth century heavily hopped "India Pale Ales" were to become an iconic *British* beer.[189] In this cluttered arena of alcoholic drinks, the local provenance of their manufacture mattered. In the same way that beer drinking became associated with alehouses and taverns in British metropolitan areas, thus evoking a national identity tied to industriousness, cider recalled an English identity tied more directly to the agrarian countryside. The beauty of fruit-tree-lined farms, well-ordered and green, was the image of national identity that cider proponents conveyed to their readers.

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[187] Edmund Spoure, "A New Song in Praise of our English Wines, and other drinks, to the tune of Let's Tipple and drink up More Wine," (1694) CRO fs3/93/5.

[188] Keblusek, "Wine for Comfort," 64.

[189] Charlotte McBride, "A Natural Drink for an English Man: National Stereotyping in Early Modern Culture," in *A Pleasing Sinne*, ed. Adam Smyth, 184.

The *idea* of Englishness through choice of alcoholic beverage was therefore contested, and in the case of cider directly tied to the "cultivated landscape." More broadly, land and identity were highly intertwined in the early modern period; it was through interpretations of the countryside that the "supreme expression--national, political, and religious--of the 'country'" was articulated.[190] National identity based on the landscape was naturally directly tied to the products cultivated from it, and cider writers made this link explicit. In his preface to *Pomona*, Evelyn provided one such example of this bundled conception of national identity being intertwined with physical earth, the commodities produced from it, and patriotism, writing: "If we must be hindered of Trade with Spain, I wish our English Indignation would scorn to feed at their Tables, to drink their liquors, or otherwise to borrow or buy of them or any other of their confederates, as long as our Native soil did supply us with Necessaries."[191] Though already mentioned in a previous chapter, Charles Cotton's thoughts once again are relevant here. Cotton directly tied the patriotism and manhood of Englishmen to the fruit they consumed, claiming fruit from the Continent would cause them to become "debauch'd by their effeminate manners, luxurious kickshaws, and fantastick fashions, by which we are already sufficiently *Frenchified*," therefore imperiling the "honour of the English Nation."[192] Beale thought no better of such Englishmen who purchased fruit from abroad, calling them "the Consumers of their Inheritance, and the Desertors of their Country."[193] These writers articulated a negative image of the things a true Englishman would *not* do that was tied to the productive capabilities of England's soil.

[190] Leslie and Raylor, eds., *Culture and Cultivation in early modern England*, 4.
[191] Evelyn, *Pomona*, 3.
[192] Charles Cotton, *The planters manual, being instructions for the raising, planting, and cultivating all sorts of fruit-trees, whether stonefruits or pepin-fruits, with their natures and seasons very useful for such as are curious in planting and grafting* (London: Printed for Henry Brome, 1675), vii.
[193] Beale, "Nurseries, orchards, profitable gardens," 3.

Alongside this, cider writers promoted a positive image meant to create an alluring alternative to the world of imported alcohol.

Cider improver writers utilized an existing strain of thought that posited people "belonged naturally in their native places, and if they stayed there then they were assured of good health."[194] Thus, Ralph Austen argued that Englishmen, "by the common use of the foresaid Liquors Cider and Perry, would bee a strong and healthy People, and Long-lived, able to goe forth to Warre and bee a terror to all our Enemies."[195] Worlidge seconded this instinct, declaring that "Cyder well made, hath been found to be a much more excellent and salubrough Liquor, and more suitable to our English Bodies..."[196] Countless recipe books utilized cider in medical treatments for ailments. Historian of medicine, Roger French, summed up the appreciation towards cider in the following way:

> Englishman of the early seventeenth century found that cyder raised his spirits, lowered his temperature and dissolved his belly. He also maintained that under its benign influence he would not contract rheumatism or stone of the bladder, that there was moral but not medical danger in getting drunk upon cyder twice a day and that it was a wonderful preservation old age.[197]

Evelyn, who probably did more than anyone in this period to advance an Edenic, fruit-tree laden vision of England, claimed that it was only through the ties of the imbiber to the place where the drink originated that one could properly judge the "pleasantness, riches, and precedence of Drinks and Diets." For Evelyn, it was a conceptual error to assume even the best foreign products would be judged as to compare to their indigenous equivalents, and those who thought otherwise were laboring under some false pretense. He thus dismissed those English supporters of the "juice of the Grape" as beholden to "superstition and prejudice," while right-thinking

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[194] Thirsk, *Food in early modern England*, 67.
[195] Austen, "unsigned petition on the improvement of forestry and fruit-tree husbandry," 66/22.
[196] Worlidge, *The Most Easie Method for Making the Best Cyder*, A2.
[197] Roger French, *The History and Virtues of Cyder* (New York: St. Martin's, 1982), 56.

Englishmen as "fit, competent, and impartial Judges" would unfailingly declare cider's preeminence. Any remaining differences of opinion against cider were therefore products of extreme differences in "Nature, Nation, or Climate (as well as by Custom and Education)," and by this turn he bound Englishmen together in these categories through what he assumed would be their common appreciation of cider.[198]

Needless to say, these sentiments were not shared by all, and contemporary proclamations of English identity in favor of one beverage or another were common. However, even poems that attacked cider tended to do so in ways that highlighted the drink's ties to a particular conception of pastoral use and provenance. One advocate of wine, Hugh Crompton, alluded to the long-held association between the beverage and its use in the hot summer months by agricultural laborers: "Then farewell metheglin, thou dreg of the hives/ And cider, thou bastardly darling of summer/ You dull the quick blood that Canary revives..."[199] Crompton's emphasis on cider's use as a cooling beverage during hot summer months paid homage to earlier widespread galenic notions that held cider to be a dangerous drink under most circumstances, but one that was deemed safe when its cooling properties were necessary for farm work.

John Taylor's 1637 history of English drinks likewise highlighted cider's ties to an idealized pastoral landscape by claiming it was first made in the Garden of Eden, initially by Eve with the tradition later continued by Cain. Taylor also suggested the drink had a prior history in England under the Druids, where "in Heathenish times" cidermakers would evoke the stars during its production (hence his incorrect supposition that the etymology of cider was linked

[198] Evelyn, *Pomona*, 3.
[199] Hugh Crompton, "Bacchus," in *Pierides, or the Muses of Mount* (London: Printed by J.G. for Charles Webb, 1658).

from "syder" to the Latin *sydera*, meaning "stars").[200] Cider's association with heathen practices was not only an artifact of fanciful history. The practice of "wassailing," where producers poured cider on the roots of apple trees and sang songs to ensure a good harvest in the coming year, was a well-known contemporary practice that would have cemented a conception of cider that was associated with a close relationship to nature.[201]

Poems written in support of other beverages also suggest that while cider may not have been popular with all, the beverage's promoters were notably vocal. One promoter of ale listed cider as a third-best option, though he alluded to the strongly held opinions by cider advocates: "Some folks of Cyder make a rout/ And Cyder's well enough, no doubt/ When better liquors fail;/ But Wine, that's richer, better still/ Ev'n Wine itself (deny't who will)/ Must yield to nappy Ale."[202] In this contest cider was a clear loser in absolute terms of volumes consumed compared to beer, though it was imbibed in England more frequently than wine.[203] However, in terms of comparison for crafting a sensuous, visceral link between an alcoholic beverage and national consciousness, cider had an impact beyond its numerical weight, as captured in the allusion to its promoters making a "rout."

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[200] John Taylor, *Drinke and welcome: or The Famous historie of the most part of Drinks in use now in the Kingdomes of Great Brittaine and Ireland..."* (London: Printed by Anne Griffin, 1637), 2.

[201] For information on the early origins on the practice of wassailing, see: Philippa Legg, *So Merry Let Us Be: The Living Tradition of Somerset Cider* (Bridgwater: Somerset County Council Library Service, 1986), 51-6; Peter Brears, "Wassail! Celebrations in Hot Ale," in '*Liquid Nourishment': Potable Foods and Stimulating Drinks*, ed. C. Anne Wilson (Edinburgh: Edinburgh University Press, 1993), 116-8; J. Rendel Harris, "Origin and Meaning of Apple Cults," *Bulletin of the John Rylands Library* 5 (1918-20), 33-54; Daniel Lysons and Samuel Lysons, "Produce," in *Magna Britannia: Volume 6, Devonshire* (London: T. Cadell and W. Davies, 1822), ccliv-ccclv.

[202] John Gay, "A Ballad on Ale" (c. 1720) in: *Poetry and Prose, Vol. 2*, ed. Vinton Dearing (Oxford: Oxford University Press, 1975), 432.

[203] As John Chartres notes, even if one only accounts for cider that was excised (leaving aside the much larger amounts that were consumed at the site of production and therefore never taxed), higher volumes of cider were taxed than wine in England in all but two decades from 1684-1770, if individual years are averaged over decades: Chartres, "No English Calvados?," 318.

The efforts by cider writers to associate the beverage with a sense of pastoral idyll rooted to *English* place culminated in the georgic poem, *Cyder*, by John Philips. This lengthy poem was the first English imitation of Milton in blank verse, and though it was less about cider in some ways than his native soil of Herefordshire, he utilized cidermaking scenes to evoke a sense of Edenic paradise in England.[204] *Cyder* was not merely a celebration of natural beauty, but contained the earlier seventeenth-century improver mindset, bequeathed by Bacon, of a drive to have an active hand in the creation of beauty in imitation of the divine. Thus, for Philips the question was "How nature's gifts may be improv'd by art."[205] Contemporaries hailed Philips' poetic achievement in capturing the estimable quality of a peculiarly *British* beverage and production practice, as demonstrated in the case of fellow poet James Thomson who lauded Philips' work by writing: "PHILLIPS! Pomona's Bard, the second thou Who nobly durst in Rhyme-unfetter'd Verse, With BRITISH Freedom sing the BRITISH Song; How, from Silurian Vats, high-sparkling Wines Foam in transparent Floods; some strong, to cheer The wintry Revels of the labouring Hind; And tasteful some, to cool the Summer Hours."[206] The reference here by Thomson to Philips' portrayal of cider as "Silurian" is notable. The Silures were a tribe of ancient Britons who contested against the Romans and hailed from the area to the north and west of Bristol that later became an epicenter of cider production. Thus, one sees in this poem a portrayal of cider that combined ancient British defiance against outsiders to a sense of deep connection to agricultural place. Cidermakers and consumers would evoke this sense of defiance

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[204] Bruning, *Golden Fire*, 68-69.

[205] John Philips, *Cyder: a poem in two books* (London: Printed for J. T., 1720), 10.

[206] James Thomson, *The Seasons,* "Autumn," lines 645-51, 1726, as cited in: Dustin Griffin, "The Bard of Cyder-Land: John Philips and Miltonic Imitation," *Studies in English Literature, 1500-1900*, Summer, 1984, Vol. 24, No. 3, 448.

and rootedness when the beverage became a prominent national concern during the 1763 Cider Excise Bill crisis.

CHAPTER FOUR: "Manifold fraudes and practizes nerefeary": Problems with the Quantification of Cider Production

In seventeenth-century improver literature, arguments invoking cider's profitability were given particular attention. While these arguments existed alongside a vast array of other claims used to promote the drink, cider's economic potential was the most-consistently advocated rationale. Enough data from the era survives to support attestations to a large expansion of the cider trade, as shown in Chapter Two. It is now worth considering the particular set of limitations that plague quantitative cider statistics and determining what conclusions may still be drawn from them. Cider became a national drink through not only the conscious efforts of improver writers to label it as such, but as part of a less-conscious state enterprise. For centuries in England, cider was a commodity that largely existed outside the normal purview of state control. National attempts to counteract the beverage's slippery nature illuminate a broader history of local attempts to exploit state weakness and of the state, in turn, maneuvering to exert firmer control. Understanding the historical constraints facing the state's attempts to make cider legible sheds light on why cider taxation could become such a fraught political issue in the 1763 Cider Excise crisis.

A brief history of cider taxation prior to the eighteenth century is therefore necessary. Records from the early modern period tend to severely undercount cider, even as compared to other alcoholic beverages, which was already a category of products beset by illicit smuggling and tax evasion.[1] Two major categories of difficulties are present when trying to assess the quantity of cider: the first issue relates to the mode of production of the beverage, where the bulk

[1] David T. Courtwright, *Forces of Habit: Drugs and the Making of the Modern World* (Harvard: Harvard University Press, 2001), 161.

was produced for on-site consumption where it was never shipped, sold, or taxed. This compared to the era's expansion of significant centralized commercial distilling and brewing operations that made the production of beer and spirits in the home increasingly unnecessary. The second problem was the contested nature of cider taxation. This arose in part due to the perception that cider was "new" (though in reality it was often reemergent) in many areas and thus authorities had a tendentiously established history of taxing and tithing the good, which led not only to outright evasion but also successful legal resistance. Both categories of obstacles were combined in periods when authorities attempted to level excise taxes on cider at the point of production rather than sale, as the imposition of home inspections by exciseman aroused fierce opposition by cider producers.

I. Obstacles relating to Probate Records and Cider

Probate records are considered by most English historians to be a major source of information for much of the medieval and early modern periods, particularly the early years when other categories of documents are comparatively rare. And indeed, this present study makes frequent use of these records in the sections above detailing the geographic and temporal spread of cider, as well as the relative increases or decreases in production. Unfortunately, caution in relying too heavily on the probate record is warranted due to several historical quirks in the method by which they were produced. These problems combine with more widely acknowledged constraints inherent to such inventories to present a serious challenge to compiling early quantitative cider data.

Somewhat ironically, the general limitations of the probate record have grown to be understood as quite severe as this source base has correspondingly been more frequently utilized

by historians. Briefly, these drawbacks include the following major obstructions: despite the centrality of land as the most valuable possession in this period, real estate was not included, thus making it difficult to offer claims about articles and practices as they related to wealth; probate records only enumerate goods belonging to the administrator or executrix of an estate; they only include credits due to the dead person and do not include debts, thereby distorting the financial picture considerably; they often do not record occupations, or when they do they do so incompletely (no dual occupations); and bequests made in the will are not included in the inventory even though these are often the most precious items.[2]

Several additional considerations make the probate record problematic for tracing the spread of new agricultural products and techniques. When attempting to trace the utilization of crops and methods the probate record dates the death of the person using the innovation, not its inception, and even then "ambiguous entries in inventories might conceal the presence of an innovation." Take clover for example. Its presence might not be obvious because "natural meadows" were not recorded and the inventory maker might make a mistake even if the legal opinion of the time was in favor of including clover. Whether particular crops were included was heavily dependent on the time of year when a person died, as seasonal products like cider would not have been present on farms in other parts of the year. Finally, probate inventories were far more likely to be made for "higher status groups," and thus do not reasonably capture instances of adoption by lower-order farmers.[3]

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[2] Margaret Spufford, "The limitations of the probate inventory," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. by John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 142-151.

[3] Mark Overton, "The Diffusion of Agricultural Innovations in Early Modern England: Turnips and Clover in Norfolk and Suffolk, 1580-1740," *Transactions of the Institute of British Geographers* 10, no. 2 (1985): 208.

In the case of cider, probate inventory limitations are pronounced. As with the example of clover above, orchard produce would have been frequently labeled so generally as to not be useful, that is if the fruit was recorded at all. In the early period, fruit trees were perceived to be in a category of agricultural goods that relied less on the hand of man to be sustained and more on the natural bountifulness of the land. The image of the fruit tree as naturally beautiful and bountiful was intertwined, and this enhanced the perception that human labor was not required to bring forth fruit.[4] Prior to 1640, fruit was therefore not often included in inventories of assets, "being regarded as the produce not of men's labour but of nature."[5] The practice of not recording orchard produce in probate records contrasts with grain, and contemporaries made this distinction explicit: "Corn growing upon the ground, ought to be put into the inventory; seeing it belongeth to the executor: but not the grass or trees so growing; which belong to the heir, and not to the executor."[6] This would gradually change in the second half of the seventeenth century as the market for fruit and cider became better established and fruit came to be considered to be "of sufficient monetary value to receive careful valuation" by probate appraisers, but this practice intermittently persisted to a degree that frustrates attempts to rely too heavily on such records for historical analysis.[7]

The relative absence of fruit and cider in early probate records could be somewhat offset by its inclusion in wills, though these records were almost always far less precise and thorough. As opposed to the practice in probate records, apples were often explicitly separated from the

[4] Andrew McRae, *God Speed the Plough: The Representation of Agrarian England, 1500-1660* (Cambridge: Cambridge University Press, 1996), 242.
[5] Joan Thirsk, "The South-West Midlands: Warwickshire, Worcestershire, Gloucestershire, and Herefordshire," in *The Agrarian History of England and Wales,* vol. V, *1640-1750,* part 1, *Regional Farming Systems*, ed. Joan Thirsk (Cambridge: Cambridge University Press, 1984), 166.
[6] Burn, *Ecclesiastical Law*, 646-7, as cited in Spufford, "The limitations of the probate inventory," 146.
[7] Thirsk, "The South-West Midlands," 166.

land in bequeathments. This was the case in the 1554 will of Thomas Northover of Somerset, who left one son a piece of land and another son the apples growing on it: "To John my son the ten acres called Stathe Parke, but the appells growing thereupon to William my son."[8] The rights to orchard produce were frequently left to widows or unmarried daughters in perpetuity as a way to ensure their financial security, with phrases commonly appearing such as, "And my Wiff to have the Apullis."[9] This practice extended to cider as the product of such fruit, seen in the example of Samuel Hewlett of Eat Quantoxhead, Somerset, who bequeathed his land and cider mill to his son, but left his widowed daughter the "cider in the cellar, little orchard,… [and] the apple trees in the meadow."[10] These records certainly add valuable context to understanding the ordering and value of cider production components. However, in order to counteract the anecdotal nature and limitations of the probate and will documents in the context of cider, the best sources available are excise tax records.

II. Cider and the Excise Tax

Excise collection practices regarding cider, covered below, changed at many points during the seventeenth and eighteenth centuries, thus making direct comparison of figures over time difficult. In absolute terms of gallons assessed for the period 1684-1764, the greatest quantity recorded was in 1763, not coincidentally the first year of a new cider tax that permitted excise officials to visit sites of production. In this year 8,587,262 gallons of cider were recorded, though there is every indication present to believe this was still a severe undercount. In the

[8] F. W. Weaver, ed., *Somerset Medieval Wills, Third Series 1531-1558* (London: Harrison and Sons, 1905), 155.
[9] Mary Siraut, ed., *Somerset Wills*, Somerset Record Society, vol. 89, (Taunton, Somerset: Somerset Record Society, 2003), 153
[10] A. J. Webb, ed., *Somerset Wills II*, Somerset Record Society, vol. 94, (Taunton, Somerset: Somerset Record Society, 2008), 156.

authoritative study of the cider excise period of 1763-1766, Patrick Woodland estimated that "four times as much cider was probably drunk as paid the existing duties..."[11] This conjecture is in line with determinations made by other historians. John Chartres has suggested "three-quarters of total output may have been of insufficient quality to enter the formal marketplace," while Michael Quinion provides later British production ranges in the nineteenth century of "five to fifteen million gallons," indicating the degree of uncertainty that persisted through later times. Chartres lamented that even in areas of England where the historian of cider would naturally "assume that cider was a major consumption good… it is much harder to prove on the basis of the Excise statistics."[12]

Historians have deployed innovative methods to attempt to calculate the quantity of cider in the seventeenth and eighteenth centuries in ways that do not rely on cider excise records, though this has produced mixed results. Chartres noted that he tried to utilize a method originally suggested by Peter Mathias in *Brewing Industry in England 1700-1830* in order to guess at regional cider production: "Formal statistical attempts to follow Mathias in employing observed regional variations in beer output as a proxy for direct evidence on cider consumption proved contradictory and inconclusive." Essentially, Chartres attempted to extrapolate from the much more robust beer excise figures to demonstrate where people were drinking less beer on average compared to the rest of England in order to make claims about where cider consumption was depressing beer sales. Unfortunately, Chartres found that "regional variations in the excised

[11] Patrick T. M. Woodland, "The Cider Excise, 1763-66" (D.Phil. diss., St. Peter's College, Oxford, 1982), 18.
[12] John Chartres, "No English Calvados? English Distillers and the Cider Industry in the Seventeenth and Eighteenth Centuries," in *English Rural Society, 1500-1800: Essays in Honour of Joan Thirsk*, ed. John Chartres and David Hey (Cambridge: Cambridge University Press, 1990), 321; Michael Quinion, *Cidermaking* (Oxford: Shire Publications, Ltd., 1982), 4.

output of small or strong beer do not prove sufficient indicators of what Mathias termed the 'cider counties.'"[13]

Patrick Woodland attempted a slightly more sophisticated version of this approach, possibly with better results. Woodland compared beer excise figures by county to the percentage of the national land tax paid. Woodland noted that the land tax for the cider counties was 14.65% of the whole of England, while their malt duty only stood at 7.77%, leading him to claim that "some disproportion is difficult to deny." Contemporaries noticed this imbalance as well, particularly Member of Parliament Sir James Dashwood.[14] However, it is not obvious why comparing beer excise rates to regional wealth (which is essentially what the land tax represented in this era) should be considered more appropriate than Mathias and Chartres' method of comparing the malt tax data to per capita population. Woodland's method produced some questionable results as well, with relatively large differences displayed between adjacent counties. The fault at the heart of both methods is more likely to have been caused by the beer excise figures, despite their comparative regularity to cider taxes. No malt excise data existed for at least five counties in Woodland's comparison, and land tax rates may have over-assessed the wealth of the cider counties at the expense of areas with large urban centers. At any rate, Woodland and Dashwood's observation about the relative imbalance between land and malt taxes in the west country is worth considering moving forward.

The problems facing official attempts to quantify and tax cider lessened slowly, if perceptibly over time from the sixteenth through nineteenth centuries. Increasingly, the patchwork of local tithing and tax customs were codified into formal standards. Attempts to deny the legitimacy of cider taxes in courts of law were comparatively rare after the first half of the

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[13] Chartres, "No English Calvados?" 322.
[14] Woodland, "The Cider Excise, 1763-66," 20.

eighteenth century even if illegal evasion persisted, whereas in earlier times such legal suits were not at all uncommon (and at times successful). Despite this trend towards better quantification, an inability to effectively collect cider taxes typified the industry well into the nineteenth and early twentieth centuries, owing largely to the diffuse nature of orchard production. Writing for the United States Bureau of Chemistry, William Alwood found it "impossible to present an accurate estimate of the apple crop of the United States" due to the "nature of the crop itself," which in turn would have meant cider was similarly produced at a small scale over "almost the entire cultivated area of the country." Despite compiling his study at the relatively late date of 1903, Alwood could only offer guesses by "well-informed persons" that "not more than about 60 per cent of the fruit actually grown in this country finds its way into channels of commerce in such a manner as to appear in general statistics."[15]

Later studies of cider in the nineteenth century are also instructive for assessing the prevalence of illegal cider selling and smuggling. Peter Clark's study of English alcohol establishments noted the prevalence of unlicensed cider shops, known as "cider sheds," in the west country in the early nineteenth century.[16] The longer history of such illicit activity is confirmed through the great number of early court cases against cider sellers accused of non-payment of excise tax and the policy attempts to address this issue. Authorities in Somerset, one of the counties with the greatest amount of cider production, seem to have not considered cider tax evasion to have been worth the effort of prosecuting before the middle of the eighteenth century. Of more than 175 court cases brought against people for either selling cider without a license or the non-payment of taxes on cider listed in the Somerset Quarter Session Rolls from

[15] William B. Alwood, *A study of cider making in France, Germany, and England with comments and comparisons on American work* (Washington, D.C.: U.S. Govt. Print. Off., 1903), 12.
[16] Peter Clark, *The English Alehouse: A Social History 1200-1830* (London: Longman Group, 1983), 260-2.

1615 to 1759, only two instances appear before 1690 (in 1632 and 1635), with the majority heavily weighted towards the last two decades. Conversely, the much less common crime of stealing cider was only documented 24 times in the same time span, and yet nine of these instances occur before 1690, implying that cider was firmly present through this time span even if tax enforcement was less regular in the early period.[17]

Early excisemen regularly bemoaned their inability to effectively collect alcohol taxes. In one such instance soon after the creation of the Excise in 1643, beer and cider tax farmers petitioning Cromwell compared their hindrances to "very great and dangerous Rocks against which not only wee and others are in danger inevitably to bee splitt and shippwrect." In this case the excisemen complained that they were not able to directly fine tax evaders, but instead were reliant on the cooperation of two local Justices of the Peace to secure and execute warrants. Beyond these general complaints, the petitioners claimed the current construction of the excise was wholly inadequate to combat alcohol tax evasion and other "manifold fraudes and practizes nerefeary":

> Besides which greate and principall obstacle to our having of the sd duetyes wee doe experimentally finde that the present lawes of the excise are not sufficiently accomodated to the discouery and punishment of the manifold new wayes and means which are dayly found out and put in practice for the defrauding witholding and substracting of this duety as well by the common Brewer as by the Innekeeper victuller and other makers and Retayleres of Beere Ale Perry Cyder Meade and Metheglin.[18]

Though clearly self-interested, such complaints were hardly unfounded. During the debates surrounding the 1763 excise, proposals were made to assist in the "discovery of fraud" by paying informants bounties equal to the value of the illicit cider discovered, minus the cost of

[17] Somerset Records Office, Quarter Session Rolls: Q/SR, boxes 67-337.

[18] "Petition of the farmers of the excise of beer, cider, etc., to the Lord Protector," BL Stowe MS 185, "Letters and papers relating to the sale of fee-farm rents, 1653-1655, (1658) ff. 117.

prosecution.[19] Earlier court records corroborate the need for such informants, as cases commonly involved the obstruction of excisemen from being able to access the site of home production. A typical example of this may be found in the instance of a 1743 case in Hereford where Phillip Symonds was prosecuted for his "alleged refusal… to permit the officers of the excise to survey his cellars… [used] for keeping of cyder, or to gage and measure his cyder casks."[20] This frustrating dynamic for excise collectors was the impetus behind the change in tax policy in 1763 that explicitly allowed inspections of cidermaking facilities in the home, where previously this had been disallowed or contested.

Creative methods to evade the excise on cider were common throughout the period. Patrick Woodland documented multiple instances of "directed selling" of cider, a practice designed to avoid paying taxes by sending the product to a buyer and pretending it was a gift.[21] Contemporaries noted this practice was accomplished in tandem with sales of other products, whereby the cidermaker would "retail their cider, and receive money for it under colour of selling apples and other things for ten times their value, and pretending that the cider is given them for nothing."[22] Another common ruse took advantage of preferential state support of the domestic grain and West Indian molasses industries by mixing cider spirit in with these advantageously taxed distillates. One anonymous petitioner claimed: "It is well known that the Distillers mix Mollasses with Cyder but pay only the Mollasses Duty." Citing this practice as a natural outgrowth of not "allowing the same Priviledges" for cider producers as the "Bounty as is

[19] Bradley, "Proposal concerning the cider tax," BL Add MS 38355 (c. 1763) ff. 304.
[20] "Sir Dudley Ryder, Knt. (Attorney-General), for and on behalf of His Majesty, informant v. Phillip Symonds," TNA E 134/16Geo2/Mich9 (1743).
[21] Woodland, "The Cider Excise, 1763-66," 18.
[22] Joseph Redington, ed., "Volume 249: 1724. Classified. Part I," in *Calendar of Treasury Papers,* vol. 6*, 1720-1728* (London: Her Majesty's Stationery Office, 1889), 298-301.

allow'd the Exporter of Corn Spirits," the petitioner proposed making the tax footing equal between liquors.[23]

The tax regime was especially disadvantageous to cider brandy distillers, who paid excise taxes upon both the purchase of the fermented cider base and the eventual distilled cider spirit. Producers complained of being "prosecuted as first buyers… of cider… although they were not retailers thereof but distilled the same into low wines & spirits that paid full Duties."[24] Petitions by cider distillers for "drawback" refunds for taxes paid on the distillate are quite common in the first half of the eighteenth century, when cider brandy production reached its peak in England.[25] Court cases against cider distillers for non-payment of this double tax bear testament to the sentiment that such assessments made cider brandy production financially impossible: "Could the defendants or any other such distillers have afforded to have sold such their spirits at soe small rates and prices if they had known that they had been chargeable with the duty of four shillings a hogshead for such cyder and perry?"[26] These petitions, court cases, and refusals to pay eventually bore fruit for an emergent spirits lobby: the 1732 instruction manual for excise officers detailed charges of 4s per hogshead of cider, but included a provision "excepting such as shall be used by Distillers for Distillation only."[27] In the period before this change, it is probable that the distillation of unwanted excess cider was highly prone to tax evasion. This would have been especially true during frequent bumper hit years when the price of cider was known to fall

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[23] "Uncatalogued and unsigned petition, February 1764," BL Add MS 38337, (1764), ff. 201.
[24] William A. Shaw, ed., "Warrant Books: February 1708, 16-20," in *Calendar of Treasury Books,* vol. 22*, 1708* (London: Her Majesty's Stationery Office, 1952), 311.
[25] William A. Shaw, ed., "Warrants, Letters, etc.: 1741, January-March," in *Calendar of Treasury Books and Papers,* vol. 4*, 1739-1741*, (London: Her Majesty's Stationery Office, 1901), 173, 516-527.
[26] "Sir Edward Northey, Knt. (Attorney-General), informant. v. John Pickering, John Collett, Wm. Whitehead, Geo. Bridger, Richd. Browning. Edwd. Lodge, Henry James, Arthur Taylor, Michl. Pope, John Cooke, Wr. Longwarren, Edwd. Bright, Saml. Hunt, Thos. Hort, Joseph Harris," TNA E 134/5and6Anne/Hil24 (1707).
[27] **"**Instructions for Officers for the Duties on Malt, Mum, Cyder and Perry," TNA CUST 142/4 (1732), 16.

by more than half, and the desperation to find a profitable use for the beverage would have been correspondingly high.

The nature of cider production as an intertwined component of larger farming labor practices meant that effective accounting of the drink for tax purposes was considered to be impossible by opponents to the 1763 excise, even when the producers were acting in good faith. Lords Foley, Oxford, Mortimer, and Willoughby de Broke protested in Parliament that common cidermakers would "by meer Ignorance and Inadvertency may be subjected to the severest Penalties for Things done in the Common Ordinary and Necessary Management of their Farms." They argued that this "incapacity of Farmers to comply" with the excise arose "not only in respect to their Ignorance, but to the Nature of their Business."[28] Although this argument was in this instance advanced by self-interested opposition figures acting in concert with the so-called "Cyder Lords" to rally support against the 1763 Cider Bill, there was a core of truth to their claims. The line between private family consumption, which was assessed differently than cider sold for retail, would have been considerably blurred in the context of the majority of cider being consumed on-site by laborers and servants. At the very least, this would have been a readily exploitable distinction.

Many opponents of the bill were not coy in suggesting that even the intrusive capabilities afforded to the exciseman, "liable to objection" though they were, would not be enough to overcome the problems inherent in taxing a product so easily "concealed," and would lead to a general "discountenance of the Scheme."[29] The prior history of cidermakers distributing the untaxed beverage to laborers at the site of production ensured, through a combination of active

[28] Lords Foley, Oxford, Mortimer, and Willoughby de Broke, "Parliament: Protests against the Cider Bill: 1763," BL Add MS 32947, March 28, 1763, ff. 333.
[29] Letter: "Hegemon" to the Duke of Newcastle, March 31, 1763. BL Add MS 32947, ff. 367.

and unintentional disregard, that unexcised cider would comprise the bulk of English production. The effectiveness with which cidermakers resisted taxation by the state illustrates their savvy in choosing to make a product that was less easily regulated than rival alcoholic drinks. Also, the consistent evasion of excise tax by cider producers over time shows considerable weakness on the part of the British state, particularly in an area that has been extolled by other historians as an exemplar reason for Britain's global success.[30] Finally, the inability of British politicians and traveling excisemen to impose legibility on cider, to use James C. Scott's framework, says something about the product itself. Commodities of little concern often had distributed production networks that could make accounting for them difficult, but an almost irresistible force tended to exert itself over these industries to induce consolidation and eventual acceptance into the state fold. Cider producers resisted this process until the twentieth century, far longer than one might have supposed.

III. Taxing and Tithing Cider prior to the Excise

Prior to the first imposition of excise in 1643, cider was frequently an untaxed and un-tithed good, and the assessments that did exist were often contested strongly. To the extent that higher-quality cider production survived during the Tudor and early Stuart downturn years, the imposition of fines on cider would not have made their mark on manorial court rolls, a major source of evidence for the period's farm produce. The notable decline of the sixteenth-century cider market would have restricted a greater proportion of trade-quality cider to the local estates where it was produced. Because court fines were a seigneurial prerogative, cider would not have

[30] See for instance: John Brewer, The Sinews of Power: War, Money and the English State, 1688–1783 (Harvard: Harvard University Press, 1990), passim.

appeared in such documents as lords would not have fined themselves.[31] Lower-quality cider was still being produced and tithed in places during this period, though irregularly and with difficulty.

Earlier customs data shows that cider was sometimes taxed prior to this period at ports. Louis Salzman notes cider was being assessed 2d per cask between 1267-1272 in Winchelsea.[32] The oldest schedule of local customs rates for Southampton, collected in the early fourteenth-century Norman-French language "Oak Book," included a section heading for cider. The beverage was not frequently recorded, however, so much so that in 1344 the Barons of the Exchequer charged the local bailiff with not properly collecting duties on a list of articles that included cider. The bailiff replied that these items had not been traded in Southampton during his time "except by men who were quit of custom." Occasional entries under different bailiffs attest that cider was in fact taxed at times, including once in 1435, two cases in 1436, and another two in 1440. The amounts assessed ranged from a single "pipe" (126 gallons) taxed at 2d to 8 "tuns" (2016 gallons) taxed at 1s 4d, which was the same rate found at Winchelsea nearly two hundred years prior.[33]

Cider and orchard fruit were occasionally tithed in the early period. In fourteenth-century Gloucestershire, the priest of Haresfield parish made an agreement with local tenants that included the "tithing of apples, pears, and cider."[34] Such agreements would have been likely to fall into disuse and be forgotten during downswings in production as cider declined in the sixteenth century. This interpretation is suggested by a spate of tithing court cases in

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[31] Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordshire: Authors OnLine Ltd, 2012), 47.

[32] Mins. Accts. (P.R.O.), 1031, nos. 19-22. For Winchelsea 1267 to 1272. Referenced in Salzman, L.F. *English Trade in the Middle Ages*, (Oxford: Clarendon Press, 1931), 355.

[33] Henry S. Cobb, ed., *The Local Port Book of Southampton for 1439-40* (Southampton: University of Southampton Press, 1961), xiv, xv, 27, 30; Brian Foster, ed., *The Local Port Book of Southampton for 1435-36* (Southampton: Southampton University Press, 1963), 26, 47, 77.

[34] Kathleen Morgan and Brian S. Smith, "Haresfield: Economic history," in *A History of the County of Gloucester: Volume 10, Westbury and Whitstone Hundreds*, eds. C. R. Elrington, N. M. Herbert and R. B. Pugh (London: Victoria County History, 1972), 194-195.

Gloucestershire in the early seventeenth century, for example. As orcharding became a newly lucrative industry in this county there would have been renewed interest by parish authorities to collect their share of the bounty. In a 1602 case against William Hall over the non-payment of tithes, Eleanor Byrte attested in a deposition that she had never heard of any tithe paid to the vicar of Newland parish for "hops, apples, pears, or any other garden fruit." Byrte claimed that the apples previously given over the years to the vicar, Mr Jones, were simply acts of kindness rather than tithes.[35]

Similar to orchard fruit, the legitimacy of cider tithes was disputed in this period in Gloucestershire. In a court case against John Cox for non-payment of cider tax, the "senior yeoman" of Maisemore, John Pearse, stated in deposition he could remember that it had always been the custom to pay two pence to the parson for every pipe of cider produced. He further declared that when he was a child this custom had been attested to by the "ancient men of the parish." Two more area farmers, William Danbey and William Mason, likewise confirmed in a supporting deposition that they were aware of the cider tithes.[36] The reliance of the court on local memory to confirm cider assessments, strikingly captured in Pearse's claims that the practice had been accepted by old men he once knew as a boy, suggests difficulty in proving such tithes had been regularly collected previously. At the very least, other forms of record keeping were clearly not available to support such a tradition, and awareness of the custom appears to have partially lapsed out of general knowledge. This does not appear to have been true in all cases, as the deposed figures in the case confirmed. At an additional hearing in the same case a month later, a different yeoman, Richard Slaughter, declared that he had produced cider annually for most of his twenty-six years in the parish and had never paid the tithe in-kind, but always as two pence

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[35] "Robert Robotham, clerk v William Hall: Tithes: February 22 & 23, 1602," GRO GDR/89/ff. 285.

[36] "Arthur Bennet v John Cox: Tithes: May 30, 1611," GRO GDR/114/ff. 12.

per pipe.[37] Not only did this suggest at least some continuity to older tithing traditions, but strongly implies that cider was starting to become a more marketized crop during this period. Crops of lesser value or those grown in small amounts were often tithed in-kind, so Slaughter's insistence that he had always paid his cider custom with currency indicates the cider industry was becoming substantial, or alternatively that authorities felt increasingly empowered to seek revenues from a product that had long resisted their advances.

However, even if one presumes that John Cox's alleged non-payment was rooted in innocent ignorance of custom, not all shirking of cider taxes would have been accomplished so virtuously. The ambiguity surrounding cider as a tithed article would have afforded unscrupulous farmers greater opportunity to evade payment. In another Gloucestershire court case from the parish of Arlingham in 1613, Henry Wintle was accused of circumventing tithes by paying only the much lower apple rate on fruit he made into cider. In a deposition appended to the case, twenty-five-year-old John Cadle affirmed he had been aware of the tradition of paying tithes of four pence per pipe of cider for the past fifteen years. If a ten-year-old boy really could have grasped the reach of tithes over cider that would imply a pervasive knowledge of the practice indeed. In defense of Wintle, Cadle confirmed he was aware that Wintle had properly paid the apple customs to the tithe farmers, who he says were "content" with it. However, Cadle's extraordinary powers of perception appear to have failed him in the moment when he was asked if he had knowledge of whether those apples had been made into cider. Despite confirming the apples were a type of "must" apple (a category of varietals frequently used in cidermaking but otherwise largely inedible), Cadle demurred in saying he had any knowledge of cidermaking by Wintle.[38]

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[37] "Arthur Bennett v John Cox: Tithes: June 3, 1611," GRO GDR/114/ff. 21.

[38] "Childe v [Henry] Wintle: Tithes: November 16, 1613," GRO GDR/121/ff. 205.

Other attempts to evade cider tithes during this period in Gloucestershire were less artful, appearing so bold as to give the impression that the accused did not feel it necessary to hide their activities. This was the case with James Wroughton, who was also accused of non-payment of cider tithes in 1608. A wide cast of deponents noted he had paid a local person to transport three pipes of cider from one house to another, that this cider had been made over multiple years from fruit growing on his land, and that he had bought an additional two horse loads of apples from another local farmer to make more cider.[39]

This collection of court cases gesture toward a larger trend that has been noticed by historians of alternative agriculture. Crops that previously had no robust history or had declined in importance in a given area were typically not tithed. However, "once they became a commercial item, regularly sold at the market, rectors or vicars claimed tithe payment. Some of the most incisive evidence of alternative agriculture, therefore, derives from the papers assembled to end such quarrels."[40] The efficiency and speed with which such officials would have asserted authority over cider is certainly debatable, and these actions at the very least probably took place after years had already passed with elevated cider sales.

The list of goods tithed alongside cider give an indication of cider's growing importance. In the parish of Thurloxton in Somerset in 1634, the rector collected assessments on "cider, apples, wool, colts, pigs, lambs, cows, and calves."[41] Livestock were relatively valuable and wool had a long history as an important commercial concern in England, even if the industry had

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[39] "Nathaniel Dall, Professor of Theology, vicar of Newent, v James Wroughton, gentleman: Tithes, March 15, 1607/8," GRO GDR/100/ff. 517.
[40] Joan Thirsk, *Alternative Agriculture: A History from the Black Death to the Present* (Oxford: Oxford University Press, 1997), 69.
[41] A. P. Baggs and Mary C. Siraut, "Thurloxton: Economic history," in *A History of the County of Somerset: Volume 6, andersfield, Cannington, and North Petherton Hundreds (Bridgwater and Neighbouring Parishes)*, ed. R. W. Dunning and C. R. Elrington (London: Victoria County History, 1992), 320-321.

declined by the time of this particular collection. The inclusion of apples and cider alongside these other valuable goods indicates cider's expanding consequence.

Though standards did change over time, the practice of not tithing cider persisted piecemeal well past the point where cider was a major industry in particular areas. An example from the 1670s in Somerset, which by this point had a well-establish cider concern, is illustrative of the broader problem. The presence of cider production but absence of tithing is confirmed on two Somerset manors in the account book titled "Account of Compositions for Tithes 1665-1685," which was a ledger of receipts and documents relating to the payment of tithes and general farm accounts. Through incidental mentions of farm handwork and carpentry, it is apparent that there was cider being produced on site, as in this example from August 24, 1678: "Then John [Scott of Henton] accounted with John Pierce: Due to him, Item: for righting the Cyder House 8d." Despite voluminous careful recording of the tithing of other types of livestock and produce, cider is never mentioned. Dozens of references to apples, the "apple-tree orchard," and "great orchard" extend back to the 1530s when the edited volume of these manors' records began, making high the likelihood that un-tithed cider was being produced on these estates for decades.[42] Despite examples such as this, the general trend of the period was towards increased tithing of cider and fruit, and this dynamic expanded to general taxation on the national level after 1643.

[42] Colin J. Brett, ed., *The Manors of Norton St. Philip and Hinton Charterhouse, 1535-1691* (Taunton: Somerset Record Society, 2007), xx, 29, 304, 469, 488, 503.

IV. The Advent of National Cider Taxes

Cider in the early period was lightly taxed "in the same bracket as sweets and ginger beer," but this was to change as the drink became an important agricultural product.[43] When the excise tax was first imposed in 1643 to fund Parliamentary armies in the revenue-constrained years of civil war, cider was included in the list of enumerated articles. While the beverage was initially assessed at a far lower rate than beer and ale (two shillings per hogshead of cider versus two shillings per barrel of beer), critical differences in the mode of collection were also present from the beginning.[44] Whereas beer and ale excise was "to bee paid by the Brewer or Maker" directly, cider and perry excise was "to be paid by the first Retailer," a crucial distinction that explains much of the subsequent difficulties faced by excisemen in collecting cider revenues. Additionally, whereas cider bought with the intention of resale was assessed the full rate of two shillings per hogshead, cider "bought for private use" was charged only half as much.[45] For a short while until 1660, the rate of one shilling per hogshead also applied to cider made and consumed on-site, but this "vexatious effect" was removed upon the Restoration, and until the eighteenth century such locally utilized cider was non-exciseable.[46]

Despite these slippery categories, the inclusion of cider as an exciseable good demonstrates a recognition of the commodity's economic importance, and the Royalist side

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[43] James Crowden, *Cider, the forgotten Miracle* (Eastbourne, East Sussex: Gardners Books, 1999), xv.
[44] Cider hogsheads were typically 63 gallons and beer barrels were typically 36 gallons. Therefore, the unit cost of the tax on cider was 0.38 pence per gallon as compared with 0.67 pence per gallon for beer.
[45] "September 1643: An Ordinance for the speedy Raising and Leavying of Moneys by way of Charge and New-Impost, upon the severall Commodities, in a Schedule hereunto annexed contained, as well for the better securing of Trade, as for the maintenance of the Forces raised for the defence of the King, Parliament, and Kingdom, both by Sea and Land, as for and towards the payment of the Debts of the Commonwealth, for which the Publike Faith is, or shall be ingaged.," in C. H. Firth and R. S. Rait, eds., *Acts and Ordinances of the Interregnum, 1642-1660* (London: His Majesty's Stationery Office, 1911), 274-283.
[46] Cecil Douglas Chandaman, *The English Public Revenue, 1660-1688* (Clarendon Press: Oxford, 1975), 41.

would soon thereafter impose their own excise on cider as well.[47] Why cider was treated differently from beer from the beginning is difficult to know with certainty. Cecil Chandaman has suggested the collection of tax at different points of production and sale was a concession to the gentleman orchard owners who wished to be free "from the visitations of the exciseman."[48] This possibly explains part of the contrast, and both Ted Bruning and Patrick Woodland have duly echoed Chandaman's reasoning.[49] However, this claim is based on a single citation by Chandaman to an amendment offered in later Parliamentary debates rather than contemporary to the original 1643 Excise Bill. The later parliamentary transcript Chandaman points to is also far from definitive, and, in fact, muddies the conclusion that the interest of gentleman farmers was the key determinant at play:

> Mr. Young offered an Amendment to the Bill of 1660 Excise which was that the Duty for Cyder and Perry be taken off. He urged the great Quantity of both which was made in Devonshire, that Gentlemen there must be subject to Excisemen, and that it would not gain the King £1000 a year. He said, that Devon was the first County that declared for a Free Parliament, and that this Imposition would be a sad Requital. Therefore he moved that none should pay Excise for Cyder, but such as sell by Retale. Our Diary says, that several Motions were made against this last Affair. Col. Birch said, that for one Hogshead that was sold by Retale, forty were sold otherways. Sir Richard Temple said, there was as much Reason for Cherry Orchards as for Apples, and moved for the Question. Mr. Allen and Sir Heneoge Finch were for letting the Bill go as it was, lest the whole Duty be struck at. Mr. Swinsen moved that only the Retaler should pay, and the Word otherwise put out. Ordered accordingly, and that the Bill be ingrossed.[50]

A few points are worth noting here; Young's amendment did indeed decry the imposition of excisemen on gentlemen cidermakers, but this was one of several arguments made that also

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[47] Woodland makes this point as well, writing: "The growing importance of cider in the rural economy and community is demonstrated by its attraction of the government's fiscal attentions at this time." Woodland, "The Cider Excise, 1763-66," 3-4.
[48] Chandaman, *The English Public Revenue,* 41.
[49] Bruning, *Golden Fire*, 56; Woodland, "The Cider Excise, 1763-66," 16-17.
[50] *The Parliamentary or constitutional history of England; being a faithful account of all the most remarkable transactions in Parliament, from the earliest times. Collected from the journals of both houses, the records, original manuscripts, scarce speeches, and tracts; all compared with the several contemporary writers, and connected, throughout, with the history of the times*, vol. V, xxiii (London: Printed and sold by T. Osborne and W. Sandby, 1751-61), 49.

included Devon's loyalty to Parliament and the meager sum such assessments would raise for the crown anyway. No other mentions of the imposition of excisemen on the estates of cidermaking gentlemen appear in collected debates of this legislative session over the redrafting of the 1660 excise, though the issue of visitation onto privileged members' manors did arise in other contexts, including resistance to the 1763 Cider Excise Bill.[51]

As Chandaman himself notes, the Restoration-era question over whether to excise alcohol produced in the home for private consumption was a broader issue that mainly revolved around domestic beer brewing.[52] Home brewing of beer was still substantial in this period, though it was on the decline as the percentage of beer sold commercially steadily climbed in the seventeenth and eighteenth centuries.[53] Thus, it is unlikely that opposition to the exciseman encroaching on gentlemen's estates explains the difference between beer and cider's treatment in 1643. More likely than being an effort to protect gentlemen farmers (who also brewed beer on their estates in great quantity), cider was treated differently in the original excise bill because the bulk of the product was of low quality and reserved for use by farm laborers. This product was seen in a different light as compared to trade-quality cider or commercial beer, which was considered a legitimate object of taxation, since the people who consumed it were assumed to be doing so by choice rather than out of necessity. Attempts to capture revenue from low-grade cider consumed at the place of production would have been deemed impractical and disruptive to basic farm function, and this was, as detailed earlier, one of the major lines of argumentation later used by opponents of the Cider Excise Bill of 1763. Finally, the differential rates assessed between beer and cider likely reflected the fact that beer was far more established and widespread, and thus

[51] See for instance: Foley, Oxford, Mortimer, and Willoughby de Broke, "Parliament: Protests against the Cider Bill, March 28, 1763," BL Add MS 32947 ff. 333.
[52] Chandaman, *The English Public Revenue,* 45.
[53] Peter Mathias, *Brewing Industry in England, 1700-1830* (Cambridge: Cambridge University Press, 1959), 376-7.

seen as economically stable enough to bear the greater cost. The idea of taxing low-quality farm cider would rightly have been seen as an attempt to squeeze blood from a stone.

V. "Some of the Worst Liquor in the World"

As hinted at by Colonel John Birch's reply to Young's amendment, only a very small portion of cider produced in this period would have entered into the market where it would have been excised. Though Birch was probably somewhat exaggerating for effect when he claimed that only one-fortieth of the beverage's production was sold by retail, there is little doubt that the vast bulk of the commodity was not of the trade-quality grade that would have necessitated different collection methods to protect the prerogatives of wealthy, politically connected landowners. Such trade-quality cider would quite likely have accounted for less than 10 percent of overall cider produced at this time, and this figure was almost certainly still below a quarter of total production by the middle of the eighteenth century when the English cider market was fully developed.

The distinction between different categories of cider is important to grasp the nature of taxation on the product and the varying level of difficulty each category would have created. In addition to Birch, other contemporaries understood that "cider" was best viewed as at least two, and probably three separate products. Benjamin Heath wrote on this issue in the context of another cider excise a century later. He argued the 1763 cider excise, which applied equally to all types of cider, was illogical and ruinous to the prospects of the bulk of the low-quality product consumed on-site. "It is necessary it should be known, that the cyder of this county may be properly distinguished into three sorts," his account began. In Heath's typology the first category of cider "answers the purposes of ordinary small beer" which he priced as eight shillings a

hogshead "at the [mill] pound" and 12 shillings and six pence a hogshead after "fully racked and casked." The second, "which may be compared to common ale, though very far beneath it in general estimation, or rather to the better sort of table-beer," sold for 15 shillings at the pound and 21 after being finished. Finally, the third "which is never disposed of from the pound, but when thoroughly fine and in perfection, may sell at fifty shillings the hogshead" or even more in "particular instances wherein fancy may be supposed to have the greatest influence." Heath noted the first category was by far the most common, comprising "considerably more than the one half of the whole quantity of Cyder made in this county; and it is for the most part consumed in the families of the growers, by whom it is very liberally distributed to their labourers." Heath wrote that the second category of somewhat more refined cider would have been the type retailed in public houses, exported to London, and consumed at the tables of "people in early circumstances of fortune." The third category of estate-quality cider, which is what some early cider improver writers like Beale and Evelyn imagined themselves to be promoting, was considered by Heath to be an "object of mere luxury and curiosity, and is rarely met with but at the tables of gentlemen who make it." Heath supposed this type "doth not certainly exceed the hundredth part of the whole quantity made."[54]

These different graduations of cider had direct relevance for tax policy. Writing during the 1763 excise crisis, Chancellor of the Exchequer William Dowdeswell reflected on the 1738/39 stipulation that the excise not be assessed on low-grade cider produced for private use. Dowdeswell approvingly noted "the attention of Parliament [was] to charge only the best sorts of the Liquor, such as were the objects for the duty imposed by Parliament and could afford to the Middle Man who was to purchase from the Farmer for the use of the commoner and in whose

[54] Benjamin Heath, *The Case of the County of Devon, with respect to the consequences of the new excise duty on cyder and perry* (London: Printed for W. Johnston, 1763), 5-6.

hands the duties become chargeable the reasonable profits of his trade." He went on to reflect on the strange coincidence that cider had become both the beverage of common farm laborers who could not have afforded to pay the excise anyway and also the drink of "the families of Gentlemen and others in the Neighbourhood who could have afforded to pay the duty." Dowdeswell lamented the impossibility of collecting an excise tax on the higher-quality product consumed on wealthy estates where it was produced without also capturing unreasonable taxes on the low-grade version of cider distributed to common farm workers. He related the initial hopes of the 1763 Cider Bill's authors that by imposing only an additional 4s per hogshead rather than the 10s originally intended, many cidermakers would "compound," "whereby the Severity of the Excise might be somewhat abated in their houses and the Tax less severely felt." However, in the event, the "duty was kept up as high as ever upon the non-Compounder," which brought under the tax's purview "some of the worst liquor in the world." Ultimately, this rendered the tax to be an "unacceptable bargain" and led to the ferocious backlash.[55]

This difficulty was ultimately a product of the especially high degree of quality differentiation within cider production. Whereas beer was taxed at different rates between "small" and "strong" beer, and an even greater gulf in quality and value separated low and high-quality cider, no such tax distinctions appear to have passed for cider despite suggestions to that effect. Again, the peculiarities of cider as a crop were likely to blame, as it would have been exceedingly difficult to assess strength and quality differences in the cider production process, even compared to beer, which likewise gave excise officials difficulty on this account.

[55] William Dowdeswell, "Considerations on the laws laying duties on cider and perry, 1766," BL Add MS 35879 ff. 347.

VI. Cider Excise Tax Rates over Time

One of the major characteristics of excise rates on cider in the seventeenth century was their volatility. After initially taxing cider at 2s per hogshead in 1643, the rate was lowered to 1s 3p and then hiked to 2s 6p where it remained at the moment of Restoration in 1660. Parliament granted Charles II the rights to the 2s 6p rate established earlier, though it removed the tax on cider produced for domestic consumption. In 1671 Parliament imposed a fifty-percent increase on domestic cider, and virtually prohibited foreign cider in England by imposing an 800% increase totaling 20s per hogshead excise on imports.[56] Increasingly the state supported domestic English cider production through prohibitive taxation of foreign cider and by eventually taking additional measures against imported apples and pears, which saw their rates increase in 1721-2 and 1736. Though the exportation of English cider was previously almost unattested to in any worthwhile quantity, permission to include cider on the list of exportable articles was requested in 1676 and granted in 1688.[57]

Increased state attention to cider, as demonstrated through its tax policies, mirrored the growing sense by contemporaries that cider was becoming a commodity of economic importance. Though the crop had long been regionally significant, authorities in London had largely left it alone in its prior state before 1643. Cider improver writer John Worlidge, who was part of the second generation of cider writers following Beale, Austen, Evelyn, and Hartlib, thus

[56] William J. Ashworth, *Customs and Excise: Trade, Production, and Consumption in England 1640-1845* (Oxford: Oxford University Press, 2003) 107; Chandaman, *The English Public Revenue*, 41-46; Woodland, "The Cider Excise," 16-17.
[57] Joan Thirsk, "Agricultural Policy: Public Debate and Legislation," in *The Agrarian History of England and* Wales, vol. V, *1640-1750*, part 2, *Agrarian Change,* ed. Joan Thirsk (Cambridge: Cambridge University Press, 1985), 345-6.

spoke of cider as an article that "hath of late years been brought into use," demonstrating his unawareness that it had been present for centuries in England.[58]

As cider became more commercialized and economically significant, the multiplier effect of supporting industries rose in tandem. Major cider ports such as Bristol saw increases in glass-bottle making, cooping, sea and eventually canal shipping, and nursery activity.[59] Fruit tree saplings that in former times would have needed to have been grafted and grown painstakingly over years by cider producers could now be purchased at specialized nurseries, the size and variety of which was attested to through multiplying records in this period. Worlidge may again be taken as representative of the perception of contemporary developments when he glowingly remarked on the importance and newness of this supportive nursery industry: "This way of Improving by planting of Fruit-trees is more practised within these few years than hath been in Ages before... The Computation may be taken from the expence of the young Trees, especially of Syder-fruit that our Nurseries have annually yielded throughout the greatest part of this Kingdom."[60]

The excise rate on cider was kept the same at 3s 9d per hogshead upon the ascension of William and Mary, with Parliament granting them 1s 3d "for their lives and the longest liver of them," another 1s 3d to William and his "heirs and successors," and a final 1s 3d for a brief three year period. Imported cider, already assessed nearly into oblivion, was further taxed an additional 2.5s per hogshead to bring the total to 22.5s, or six times as much as the tax on

[58] John Worlidge, *Vinetum Britannicum: or, a Treatise of Cider, And such other Wines and Drinks that are extracted from all manner of Fruits Growing in this Kingdom. Together with the Method of Propagating all sorts of Vinous Fruit-Trees. And a Description of the new-invented Ingenio or Mill, For the more expeditious and better making of Cider* (London: Printed By J. C. for Tho. Dring, 1676), iv.
[59] For improvements in river navigation between Herefordshire and Bristol, see: Thomas Willan, "The River Navigation and Trade of the Severn Valley, 1600-1750," *Economic History Review*, VIII, 1937-8, 68-79.
[60] John Worlidge, *Systema Agriculturae; The Mystery of Husbandry Discovered: Treating of the several New and most Advantagious Ways Of Tilling, Planting, Sowing, Manuring, Ordering, Improving Of all sorts of Gardens, Orchards, Meadows, Pastures, Corn-lands, Woods & Coppices* (London: Printed for Tho. Dring, 1669), 99.

domestic cider. The protection of the cider industry from foreign competition is striking when compared to imported spirits, which were assessed only twice the amount of excise as those produced domestically.[61] Rates were raised to 4s per hogshead in 1692 following a raft of temporary increases in 1671, 1689, 1690, and 1691, but despite the passage of additional bills that tightened the language governing cider excise assessment in 1710, 1736, and 1743 it was clear to all that evasion was rampant.[62] Even accounting for the propensity of apple crop yields to swing precipitously from year to year, the volatility of the excise figures for cider is notable to the point of calling into question how effectively these taxes were collected.[63]

Other than the initial attempt from 1643-1660 to tax the production of cider consumed on-site, taxes on such cider were not renewed until a new attempt during Queen Anne's reign. Taxing individual purchasers rather than producers created obvious problems for excisemen, and this led to complaints over the "impossibility of collecting a tax from every private buyer of cyder, as the cyder made by one maker might be sent to five hundred different persons."[64] Writing during another cider excise crisis 50 years later, Chancellor of the Exchequer William Dowdeswell recalled this earlier attempt to impose a new tax on cider produced for on-site consumption. In his telling, before the added taxes in the 12th year of Queen Anne, some cidermakers "selling in large quantities came not properly within the description of Retailers [and] were by the Description brought within the Act and became subject to this duty." Parts of this act were repealed soon after adoption, and memory of the strong opposition to the act would fuel the fire of the much more important resistance to the 1763 Cider Excise Bill. Dowdeswell noted that confusion persisted over whether farm cider was exciseable, however: "Doubts arose

[61] "Rates of excise, when granted and when terminable, 17 November 1692," TNA T-48-88-73.
[62] Woodland, "The Cider Excise, 1763-66," 17.
[63] Chartres, "No English Calvados?" 332-33.
[64] "Queries relative to the Cyder Act," BL Add MS 38355 ff. 298.

whether Cyder for private use was chargeable with this duty, and by the 17th of the late King [1738/39], it is Enacted that buyers of Cyder and Perry for their private use are not to be charged."[65] Cider produced for on-site consumption remained a legal gray area even after this, and it was not until 1743 that the right to not pay taxes on cider produced for private consumption was officially confirmed.[66]

It is difficult to know with certainty whether evasion of cider taxes increased during the eighteenth century, but attention to the problem by officials certainly became increasingly apparent by mid-century. Cider excise evasion cases multiply precipitously around 1750 in Somerset, for example. As referenced earlier, of the over 175 cases of cider tax evasion that were brought before the Somerset Quarter Sessions between 1632 and 1759, the vast majority occur at the end of this time range. Only five of these cases took place prior to 1743, and a noticeable takeoff in case numbers occurred in the 1750s. This increase included 18 cases in 1756, 27 in 1758, and 77 more in 1759 alone, implying the dramatic increase in prosecutions reflected a conscious choice by authorities to begin enforcing excise laws that had been routinely ignored previously.[67]

The details of cider excise court cases give some insight into the form that such evasion took. In the case of one cider exporter in the Bristol area there was no obvious attempt to hide the cider from authorities, but rather blunt refusal to pay. The deposed exciseman complained that despite knowing perfectly well that the defendant bought a large quantity of cider in 1733 and that he was subject to a 4s per hogshead duty, "the defendant still refuses to pay the same"

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[65] William Dowdeswell, "Considerations on the laws laying duties on cider and perry," 1766, BL Add MS 35879 ff. 347.
[66] Woodland, "The Cider Excise, 1763-66," 17.
[67] Somerset Records Office, Quarter Session Rolls: Q/SR, boxes 67-337.

despite demanding payment “several times.”[68] In another case from Bristol from the same year another cider exporter was accused of evading cider customs duty through “his refusal to allow the officers of excise to survey his cellars.”[69] An escalating sense of obstinacy is present in such records, and such sentiments would ultimately provide the fuel that ignited the 1763 Cider Excise Bill tumult.

VII. The 1763 Cider Excise

Patrick Woodland’s Oxford dissertation on the 1763 excise “crisis,” as he termed it, provides an excellent account of the background and fallout of the 1763 Cider Excise Bill.[70] Woodland’s obvious interest was in the Parliamentary politics surrounding the Bill’s adoption and this approach dominated the work, particularly in his treatment of the House of Lords. Further bolstered by three subsequent journal articles, Woodland covered enough of the social, economic, and non-Parliamentary political effects of the Cider Bill that comparatively less time will need to be spent on this topic here, despite its consequence to the history of English cider.[71] Woodland recognized the importance of the cider excise crisis as a flashpoint for political opposition during the early years of George III’s reign, though his extensive focus on London leaves some additional room for considering the excise’s impact on broader concerns.[72] As has

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[68] “John Willis, Esq. (Attorney-General), informant. v. Richmond Day: Customs duty payable on cyder exported by the defendant, Bristol,” 1736, TNA E 134/10Geo2/Hil5.

[69] “John Willes, Esq. (Attorney-General), informant. v. John Tyler: Customs duty payable on cyder exported by defendant, Bristol,” 1736, E 134/10Geo2/Hil9.

[70] Happily, Woodland’s relatively inaccessible dissertation is presently listed as a “forthcoming” book by Davenant Press with a preface by Perri Gauci.

[71] See: Patrick T.M. Woodland, “The House of Lords, the City of London and Political Controversy in the Mid-1760s: The Opposition to the Cider Excise Further Considered,” *Parliamentary History* xi (1992): 57-87; Patrick T.M. Woodland, “Extra-Parliamentary Organization in the Making: Benjamin Heath and the Opposition to the 1763 Cider Excise,” *Parliamentary History* iv (1985): 115-36; and Patrick T.M. Woodland, “Political Atomization and Regional Interests in the Parliament: The Impact of the Cider Debates, 1763-1766,” *Parliamentary History* viii (1989): 63-89.

[72] Woodland, “Political Atomization and Regional Interests in the Parliament,” 66-67.

already been shown above, reactions against the Cider Bill are also useful in guiding assessments of cider's role in England in the period prior to the tax's adoption in lieu of a more robust early source base. The debates and sources that were generated as a result of the Cider Excise are useful, ultimately, for both quantitative assessments of cider's value and as a moment when major figures were compelled to share political thoughts about the commodity.

Woodland's description of the storm surrounding the 1763 Cider Bill as a "crisis" was a portrayal shared by contemporaries. Horace Walpole recollected that the tax had "raised a great flame in the western counties," though he attributed the severity of the political crisis it engendered in London to political "management" by which "that flame was transported to the metropolis."[73] In brief, the bill imposed an *additional* four shillings per hogshead of cider on top of existing duties, which would have been an unwelcome peacetime hike anyway, following as it was directly on the heels of the high taxation levels seen during the Seven Years' War. While the original draft of the bill called for an additional duty of 10s per hogshead assessed only on the retailer, this was changed in the second draft to the lower rate that crucially applied to the *maker* of cider.[74] The tax on retailed cider was unpopular in its own right, but the extension of the excise into "the private houses and families of every landholder who makes cyder or perry" provoked the greatest pushback.[75] Woodland has already documented the deep-rooted hostility to excise that more generally existed prior to this moment, so it suffices here to note that not all of the animosity directed towards this bill should be understood as specific to cider, but rather as both a longer-term political project and cultural relic from previous anti-excise episodes.[76]

[73] Horace Walpole, *Memoirs of the Reign of King George III*, vol.1, ed. Derek Jarrett (Yale University Press: New Haven, 2000), 165.
[74] "Mr. West's Papers, March 25, 1763," *Parliament: Proceedings in the Commons: 1761-1763* BL Add MS 32947, ff. 315.
[75] Heath, *The Case of the County of Devon*, 3.
[76] Woodland, "The Cider Excise, 1763-66," 21-35.

The cider excise tax was tactically introduced to Parliament packaged alongside a larger supply bill that made it politically difficult to obstruct, a maneuver known as "tacking." The bill met with no effective resistance in the House of Commons, but this tacking move helped galvanize resistance in the House of Lords. Opposition Lords complained that "to tack into such Bill, Matters which for many Reasons ought to be kept separate and distinct, is destructive of all Freedom of Debate, and of all due Deliberation."[77] MP "friends" in the House corresponded with Philip Yorke, 1st Earl of Hardwicke, "eager for our consider the bill as a Tack, which the House of Lords should reject as such."[78] This line of resistance was ultimately dismissed, with Hardwicke arguing that this objection alone was not strong enough to disrupt the bill, so the focus was instead placed more squarely on the impact of excisemen entering private homes.[79]

Political opposition to the cider tax by both Lords in Parliament and common citizens in the west country (addressed below) had to equally contend with the specter of getting branded as disloyal if they pushed their resistance too far.[80] The Treaty of Paris had been signed only a month earlier, after all. This explains some of what appears to the modern observer as almost excessive caution exhibited by Opposition Lords. Contemporary correspondence confirms these fears were actively on the minds of those acting to derail the bill, as when the Earl of Albemarle informed Newcastle that the Bute administration was "strongly of opinion that our opposition at this time is improper."[81] Newcastle, knowing George III likewise thought obstruction of the excise to be untoward, asked Albemarle to tell the King he did not wish to act against the bill and

[77] Foley, Oxford, Mortimer, and Willoughby de Broke, "Protests against the Cider Bill: 1763, March 28, 1763," BL Add MS 32947 ff. 333.
[78] Newcastle to Hardwicke, "Philip Yorke, 1st Earl of Hardwicke: Correspondence with the Duke of Newcastle: March 18, 1763," BL Add MS 32947, ff. 246.
[79] Hardwick to Newcastle, "Philip Yorke, 1st Earl of Hardwicke: Correspondence with the Duke of Newcastle: March 18, 1763," BL Add MS 32947, ff. 244.; Woodland, "The Cider Excise, 1763-66," 65-66.
[80] Woodland, "The House of Lords, The City of London and Political Controversy in the Mid-1760s," 59.
[81] Albemarle to Newcastle, "George Keppel, 3rd Earl of Albemarle: Correspondence with the Duke of Newcastle: March 27, 1763," BL Add MS 32947, ff. 327.

that his “private opinion is the same it ever was.” However, Newcastle wanted the King to understand that the “affair has taken a different turn since I saw you” and “when all our principal Friends were of this opinion, I could not avoid joining with them.” He went on to list all of the “Cyder Lords” who “were violently against the Cyder Bill” and urged Albemarle to “acquaint His Royal Highness” with the particulars of the opposition, a subtle way to express opposition without breaking openly with the King.[82]

Not all figures were as cautious as Albemarle and Newcastle, however. Debate in Parliament appears to have been acrimonious, described as containing “shameful prose” and complemented by accounts of obvious tension with at least one speaker being “called to order by the Speaker” but continuing nonetheless “on for two minutes.”[83] Much of the real passion against the bill came from the so-called “Cyder Lords,” who hailed from the part of the west country that would be most affected by the bill. This group sat in uneasy alliance with Newcastle’s loose coalition of opposition members, though it is obvious that little organizing took place between them. Much of Newcastle’s correspondence on the Cider Bill is filled with attempts to ascertain the intentions of the Cyder Lords, who were not typically active in the upper tier of Parliamentary politics, and thus relatively enigmatic. In one example, Rockingham wrote to Newcastle to convey the sentiments of Pitt the Elder, who was cautiously optimistic that opposition to the bill would be politically advantageous, “especially if [the] Cyder Lords continued warm.” Pitt was anxious to limit “inflammatory flowers” in their protest, however, and Rockingham warned Newcastle that he knew “nothing further about the Cyder Lords,” only that

[82] Newcastle to Albemarle, “George Keppel, 3rd Earl of Albemarle: Correspondence with the Duke of Newcastle: 1746-1768,” BL Add MS 32947, ff. 329.
[83] “Proceedings, March 17, 1763,” *Parliament of England: Proceedings in the Commons: 1761-1763*, BL Add MS 32947, ff. 236.

"I hear L. Fortescue intends to speak," showing the limited collaboration between the two groups.[84]

The Cyder Lords could not have failed to realize Newcastle's motivations were purely political rather than a product of any real desire to overturn the Cider Bill, which, in addition to the general lack of party structure during this period, probably kept the groups at arm's length.[85] Former Chancellor of the Exchequer Henry Bilson Legge's correspondence removed any pretense on this matter, in which he urged Newcastle to take up the standard of opposition against the bill despite admitting to know nothing about the particulars of the tax in question: "I am not master of order enough to know how far the lacking of an exceptionable Tax to one that is not so is contrary to practice and liable to censures; but it looks to me like a subject upon which an able Parliament man would make a figure."[86] The political motives of Newcastle and his group were confirmed after the legislative session ended, when Hardwicke and Newcastle celebrated a successful result despite the bill passing. Newcastle crowed that the session had ended "with great Honor, and Reputation to us; & has laid a Foundation for much good another year; & for what all Honest Men must wish, a Removal of the Present Minister, or Ministers, from That Exorbitant Power, which They have used so much to their own Discredit, & The Dissatisfaction of the whole Nation." Newcastle further reiterated: "I own, I am very Happy at the Manner, in which We have finished our Conduct this Session," and yet left unmentioned the evils of excise.[87]

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[84] "Rockingham to Newcastle, March 26, 1763," *Charles Watson-Wentworth, 2nd Marquess of Rockingham; Prime Minister: Correspondence with the Duke of Newcastle: 1750-1768*, BL Add MS 32947 ff. 317.
[85] Woodland, "The House of Lords, The City of London and Political Controversy in the Mid-1760s," 60.
[86] "Legge to Newcastle, March 17, 1763," *Henry Bilson Legge, Envoy to Prussia in 1748, Chancellor of the Exchequer, 1754-1757: Correspondence with the Duke of Newcastle: 1747 – 1764*, BL Add MS 32947, ff. 238.
[87] "Newcastle to Hardwicke, March 31, 1763," *Philip Yorke, 1st Earl of Hardwicke: Correspondence with the Duke of Newcastle: 1721 – 1763*, BL Add MS 32947, ff. 361.

Newcastle, the recently removed former Prime Minister, was not the only political animal eager to argue cider's cause on behalf of larger political struggles. Government tensions with the City of London had long been at boiling point resulting from the long list of additional taxes used to fund years of warfare. The introduction of the Cider Bill offered the "first such stick with which to beat the government and for the City opposition must have appeared providential."[88] The Sheriff of London quickly presented a petition to the Lord Mayor of London and Aldermen declaring that "the extension of excise laws would be a step towards a general excise so contrary to the liberties of a free people," and proclaimed Londoners' "sorrow to find that the fine fruits of peace after a most glorious and sacerfitale war was an extension of the laws of excise."[89] In the end, the Lord Mayor and Aldermen presented a petition directly to Parliament in irregular fashion, which caused great consternation and displayed the degree of dissatisfaction felt against the Excise by City politicians. The utilization of the Cider Bill for political ends appeared at the time to have tangible effects, as Bute resigned as Prime Minister a week after passage, though the prospect of his resignation had been discussed with the King the previous November.[90] The City was also successful to the extent that they helped win repeal of the bill three short years later.

Whether a genuine expression of sincerity or not, agitation against the bill in the debates in London shared much of the same tone as what emerged in the west country, even if the animating concerns there were usually more directly tied to cider. The protest lodged by Lords Foley, Oxford, Mortimer, and Willoughby de Broke after the Cider Excise Bill was passed used language that was common to the west country as well, noting their "alarm at a Stretch of Power,

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[88] Woodland, "The House of Lords, The City of London and Political Controversy in the Mid-1760s," 63.
[89] "Another letter about the Cyder Bill, March 25, 1763," *Mr. West's Papers*, BL Add MS 32947, ff. 267.
[90] Woodland, "The House of Lords, The City of London and Political Controversy in the Mid-1760s," 58.

so wide, so Unnecessary and so Unconstitutional." The Lords were quick to note how the Act impacted the privileges of Members of Parliament, claiming such an excise was "injurious to the liberty of the subject" and "particularly offensive to the Dignity and Privilege of the Peers; since their Houses may be visited and searched, and they themselves may incur the Penalties of this Bill, to be levied on them by Justices of the Peace, and Commissioners of the Excise." But the Lords also took care to assert that these same injustices would affect the common people, "of which this House hath been always estemm'd the Hereditary and Perpetual Guardians."[91] Hardwicke's notes on the Cider Bill, which were later inscribed with a message from his son that said "This was the last time my Father spoke in the H. of Lords," made it clear that he considered the bill to be "an additional Land Tax on Cyder Counties." The notes indicated his concern for farmers who produced cider as a way to pay their rents and reiterated his claim that the excise amounted to "a 3rd land tax upon these Counties in particular."[92]

West-country writers like Benjamin Heath exhibited a similar approach to metropole figures, as he deployed a mix of caution and verbal bombast in his attacks against the tax. As with the Lords' early complaints against the bill on procedural matters such as tacking, Heath emphasized that the bill had been drafted in secret and passed quickly to forestall debate: "Scarcely were we apprized of its nature, purport, extent, and the provisions established by it, than the advice we received, that it had passed the House of Commons." On the matter of how the excise was to be assessed, Heath accused those people who drafted the bill of not understanding "the nature and peculiar circumstances of the commodity," which therefore will

[91] Foley, Oxford, Mortimer, and Willoughby de Broke, "Protests against the Cider Bill: March 28, 1763," BL Add MS 32947, ff. 333.
[92] Philip Yorke, 1st Earl of Hardwicke, "The Bill for a tax upon cyder, March 28, 1763," *Notes of speeches and debates in Parliament, with a few law papers, in the handwriting of Philip Yorke*. BL Add MS 38161, ff. 129.

"clog the collection of it."[93] Like Newcastle's message to the King expressing his "private opinion," local west country MPs found themselves caught between their expected public position and their private reservations. In a letter to the sheriff of Devon, Heath wrote of the "very delicate and critical situation in which [local Members of Parliament] were placed," in that their constituents demanded them to be anti-excise, but their personal sentiments leaned against opposition. Pressure to vote for the Cider Bill appears to have been intense on these MPs, as they complained dejectedly about "the steps they were directed to take, but as they could not be indifferent about the welfare of the County they have the Honour to represent, they seem to wish they had not been so strictly limited [in their voting]."[94] MPs from the cider-growing regions had expected to see a draft of a new bill, but when no draft came forth they became increasingly bitter, leading to a breakdown of Ministry and cider MP relations.[95] These process complaints, similar to ones advanced by the Lords around Newcastle, helped keep the debate from becoming too focused on the increase of additional duty, which was less solid argumentative ground.

Anti-cider tax advocates were leery of engaging in a debate centered on rates because the brewing industry had been similarly afflicted with excise increases only a few years previously. Raising the rate of cider excise would bring beer and cider rates into parity, a fact that was pointed out repeatedly by those in favor of the tax. An anonymous response to a "farmer's letter lately published in the Gloucester Journal," one of many such letters published by west country newspapers, argued that beer makers were imposed upon more harshly than cidermakers, and that in relation to already-existing duties on malt, the new duty on cider was "neither afflictive

[93] Heath, *The Case of the County of Devon*, 2.
[94] Benjamin Heath, "Copy of Mr. Heath's letter to the sheriff of Devon, December 6, 1763," CRO DDR 5301/62
[95] Woodland, "The Cider Excise, 1763-66,"100.

nor unprecedented."[96] Sentiments such as these are what prompted writers like Benjamin Heath to lay down counterarguments about how the different gradations of cider were so dissimilar that a common tax between beer and cider would actually be an unfair disadvantage to the bulk of cidermakers. This was a nuanced argument, however, and it was far easier to focus on the perceived injustice of excisemen entering into the homes of farmers or underhanded parliamentary maneuvers.

The votes and statements of Cider Bill supporters in Parliament followed them home when they returned to the cider counties, where the climate was decidedly hostile. The bishop of Exeter felt so hounded over his vote in favor of the Cider Bill that he considered staying in London unless treated better: the bishop "not very prudently returns insult for insult, having publicly declared, that if they receive him as he expected to be received, he would be at Exeter in May next; but if not, that he would spend the Rents of the Bishopric in London and not trouble his head about them."[97] Seeing no real prospect of the bill being overturned in the near term, one Philip Barton expressed a view that Newcastle would have appreciated, arguing that the west country would at least have more political muscle in the near term: "He tells me that all hopes of an accommodation amongst the Great Ones are vanished, that the present Ministry are determined to stand their ground and fight it out to the last. The only good I foresee from the present divisions is that the Favour of the Cyder Counties will be worth courting."[98]

The response the cider excise elicited might be compared in ferocity to the Stamp Act that was assessed two years later in the British colonies in America. Both taxes may have fallen

[96] Anonymous, "A Friend of Mine in the Country having desired my Opinion relative to Several Questions which he hath extracted from a Farmer's Letter lately published in the Gloucester Journal…" (c. 1763) BL Add MS 38355 ff. 286.
[97] Philip Barton to Philip Raleigh, letter, August 2, 1763. CRO DDR 5301/55; see also: Woodland, "The Cider Excise, 1763-66,"259-61.
[98] Philip Barton to Philip Raleigh, letter, September 15, 1763. CRO DDR 5301/56

on articles that many held dear, but ultimately the political storms they occasioned had deeper roots. Cider excisemen were hanged in effigy, families torn over loyalties, and a great deal of ink spilt in local newspapers against the tax. One former Somerset MP, William Pynsent, was so enraged over Lord North's vote for the cider tax, calling it a "treason of the Peace," that he diverted his inheritance from a female cousin married to North. Instead, based partially on Pitt the Elder's vote against the Cider Bill, Pynsent bequeathed his estate of £3,000 a year to Pitt.[99] In recognition of his benefactor, Pitt erected the 140ft-tall Burton Pynsent Monument that later became locally known simply as the "Cider Monument."

Letters to local newspapers echoed similar themes already addressed, but also included wild speculation. A "letter to the printer" complained in familiar tones that the tax would be a hardship on cider producers as they would be "subjected to many Inconveniences, exposed to the Suffering of Vexations, and even liable, from Ignorance and Inadvertence, to the Payment of Penalties."[100] Another passage in the same newspaper indicated anti-cider excise agitation was being organized on a local level: "This Day, at a Court of Common Council held at Guildhall, it was resolved to petition against the Bill relating to the Duty on Cyder and Perry, now depending in Parliament, so far as relates to any further Extension of the Excise Laws."[101] This type of local organized opposition sometimes bore odd fruit. Somewhat confusingly, rather than argue the cider tax was a burden because it was so large, one London city petition claimed the tax increase would only raise such small quantities that the designs of the Cider Bill were surely part of a larger nefarious attempt to acclimate people to excise by lulling them into cooperation with low

[99] Edward Pearce, *Pitt the Elder: Man of War* (London: The Bodley Head, 2010), 301.
[100] Bristol Journal, March 31, 1763, 4.
[101] Bristol Journal, March 24, 1763, 3.

initial amounts: “The smallness of the sum indicates *that* cannot be the only motive to so extraordinary a measure.”[102]

Local writers who were able to move past the anger stage of grief to bargaining offered a range of alternatives to home visits by excisemen that doubtless would have done little to offset evasion. A certain “Mr. Bradley” proposed that instead of on-site excise visits known cidermakers should, once every three months, make a declaration under oath of how much cider they made. He further proposed that if a cidermaker stopped making the beverage for a period of time they should be compelled to declare they had done so in a written oath: “That in Case a maker sholde make no Cyder for a Time, being excempt from Survey of Officers, he should declare the same in writing upon Oath from Time to time.”[103] Another proposal came from James Scadding of Devon, who suggested in lieu of the excise that anyone who owned a cider mill, engine, or other device for making cider should be forced to purchase an annual license. While Scadding was probably correct that such a scheme would have eliminated the need for the exciseman to go “riding many Miles after [cidermakers], and more every Hhd. of Cyder that shall be made,” it is questionable whether evasion would have been much impacted under such a proposal.[104]

In the end, such proposals came to nothing and the bill was passed on the third reading with 73 “contents” and 39 “not contents,” an unusually close margin for this period in the House of Lords, especially on a supply bill.[105] No official list of the votes survive, though Woodland has proposed several plausible options based on correspondence and lists of supporters of both

[102] Bristol Journal, March 31, 1763, 2.
[103] Mr. Bradley, “Proposed,” *Bradley: Proposal concerning the cider tax,* c. 1763, BL Add MS 38355 ff 302.
[104] James Scadding, “Proposal,” *James Scadding, of Sidmouth: Proposal conc. cider-tax*: c. 1763, BL Add MS 38355, ff. 304.
[105] Temple, Bolton, and Fortescue, “Dissentient, March 30, 1763,” *Parliament: Protests against the Cider Bill: 1763*, BL Add MS 32947 ff. 349.

sides drawn up beforehand.[106] Cyder Lords Temple, Bolton, and Fortescue condemned the passage in the strongest terms possible, calling it an act of "intolerable oppression," and quoted from William III's writing on hearth money to further call the bill "a Badge of Slavery." These three members pledged themselves to repeal in weighty terms, declaring themselves opposed to the end against "such alarming proceedings, so repugnant to the principles of Oeconomy, and to the Spirit of Liberty, and by this solemn Testimony to declare, that we are determined, upon all Occasions, to endeavour to protect as far as in us lies, the meanest of Our Fellow Subjects against Oppression of every Kind."[107] Three short years later, they would achieve this goal of "free cider," celebrated in countless engravings on cider drinking vessels from the period. Once again, merry lads would be able to enjoy their tax-free cider in peace from the exciseman: "One place there's more must not forgotten bee/ And that's the pound house, which makes cider free/ Whereof at times Boone Ladds drink merrily."[108]

[106] Woodland, "The Cider Excise, 1763-66,"67.
[107] Temple, Bolton, and Fortescue, "Dissentient," ff. 349.
[108] Edmund Spoure, "A poem on Trebartha House, Shewing its Conveniences and Sittuation,"1694, CRO fs3/93/5, 154-5.

CONCLUSION

Cider reached great heights in England in terms of absolute production, intellectual salience, and cultural cachet during the period covered by this study. For most of the years from 1650 to 1766, cider was second only to beer in terms of volume of alcoholic beverages produced or consumed in the nation. It was the object of a tremendous number of full-length books, planter manuals, smaller pamphlets, Royal Society publications, petitions to government officials, and letters between important figures. Capturing the drink's economic potential became an increasingly acute concern of the state and motivated a wide range of farmers to repurpose their lands to growing cider-fruit trees. As cider rose in popularity and importance it transitioned from being a regional beverage, primarily produced for agricultural laborers and occasionally gracing the tables of regional elite, to a commodity that was identified as quintessentially *English*, shipped in high volumes to major urban centers across the country. The generally middling-order tipplers who drank cider in these cities, especially London, were half-consciously importing a conception of rural, Edenic paradise from the English countryside.

In a turn that mirrored cider's earlier faltering position in sixteenth century, production and appreciation of the drink weakened considerably after the first half of the eighteenth century to the extent that it once again became little more than a regional beverage favored by those who had few options. This piecemeal downward cycle regionally revealed itself at different times and in lesser or greater degree over the latter part of the eighteenth century and early nineteenth century, and the subsequent production trough persisted until cider experienced a modern renaissance in the final decades of the twentieth century. The history of cider's decline after its eighteenth-century peak calls to mind the comparatively better-studied history of enclosure in the seventeenth century; historians who have tried to trace such a transformation can say with

certitude that it occurred at some point, but the particulars of when and where it occurred are murky. It is clear that by 1900, cider in England was produced in lower volumes and carried far less cultural cache than it had in 1700. Beyond such general statements, efforts to trace this decline more precisely are hampered by the same impediments that have made it difficult to show the earlier increases in production in the present work. This nineteenth-century diminishment of cider production would be a rich area for future study.

I. The Wheel Turns Again: A Brief Assessment of Cider's Nineteenth-Century Retreat

Observations by contemporaries of a perceived weakening in cidermaking and orcharding tend to obscure as much as they reveal about broader trends. As ancient fruit orchards were no longer maintained and left to decay, the sight of these formerly productive and beautiful trees would have left a striking mental impression on observers. However, this phenomenon would have occurred in all periods, as some farmers would have naturally left orchards untended for a variety of reasons regardless of whether cider was profitable. Thus, even during the peak of cider production in the period covered by this dissertation, John Evelyn struck a mournful tone in his diary on September 20th, 1700 when noting the state of the fruit trees surrounding the ancient seat of the Carew family in Beddington. The dilapidated house was accompanied by a similarly degenerating orchard, which had previously boasted "the first orange trees that had been seen in England, planted in the open ground, and secured in winter only by a tabernacle of boards and stoves removable in summer, that, standing 120 years, large and goodly trees, and laden with fruit, were now in decay."[1] Observations of this type are frequent throughout the period despite ample evidence of expanding nursery businesses and stable excise tax figures. Dating back to at

[1] John Evelyn, *The Diary of John Evelyn vol. 2*, ed. William Bray (London: M.W. Dunne, 1901).

least John Norden's observations of decaying orchards around the home counties in 1607, the presence of wild, untended fruit trees was a frequent touchstone used by agricultural moralists, limiting the value of anecdotal evidence.[2]

However, the presence of observations noting untended orchards interspersed over the decades of cider's ascendency give way to more significant reports in the second half of the eighteenth century that make it clear cidermakers were no longer active in the full extent of their former range, or that they were producing in diminishing quantities where they still operated. Writing in his broad survey of Norfolk agriculture in 1796, Nathaniel Kent observed that the remaining orchards in the county were "very few and much neglected--consequently no cyder."[3] And whereas the author of the *Compleat Cyderman* could claim that "Devon then surpassed all other counties in the management of fruit trees" in 1754, by the end of the eighteenth century this reputation was lost and Devon would increasingly be counted among the lower tier of cider counties.[4] Even in the context of general decline, the diminishment of Devon's cider industry appears to have been "more marked than in the other cider counties."[5]

Decreases in Devon were mirrored in the surrounding counties. Several reports from the late-eighteenth century in Cornwall claimed the western part of the county was largely no longer under orchard cultivation as it had been previously. Archaeological evidence of cider mills and presses from the area confirm this trend, and whereas "during the eighteenth century, orchards

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[2] John Norden, *The surueiors dialogue: very profitable for all men to peruse, but especially for all gentlemen, or any other farmar, or husbandman, that shall either haue occasion, or be willing to buy or sell lands*... (London: Printed by I. W[indet] for I. Busby, 1607), 208.
[3] Nathaniel Kent, *A General View of the County of Norfolk with Observations for the Means of its Improvement* (London: Norfolk Press, 1796), 63.
[4] William Ellis, *The Compleat Cyderman: or, the present practice of raising plantations of the best cyder apple and perry pear-trees, with the improvement of their excellent juices* (London: Printed for R. Baldwin, 1754); William George Hoskins, *Devon* (Tiverton: Devon Books, 1992), 94.
[5] Alan Stone, *In Search of Cider: Cider and Cider Makers in Cornwall, Devon, Dorset and Somerset* (Shepton Mallet: Somerset History, 2012), 33.

improved and with them the quality of Cornish cider," by the middle of the nineteenth century the depletion of orchards had extended to the full county, leaving only several small-scale cider producers.[6] Though national orchard statistics in 1883 showed Cornwall was still the seventh-leading county in terms of orchard acreage, at least one modern cidermaker has claimed "there is no heritage of cider in Cornwall," showing the depths to which the area's formerly prolific cider output fell by the twentieth century.[7]

To the east of Devon, the situation was little better. American agricultural writer William Alwood described cidermaking in Somerset as particularly unimpressive by the early twentieth century, despite the county's former preeminence in this area. Alwood's study makes it clear that orchards that had previously been dedicated towards cider production were increasingly neglected: "It was rare, indeed, that the orchard plantings seemed to be placed with care, and the impression made was that as an industry there was no modern development perceptible." The extent to which such declines impacted changes in absolute production are difficult to determine; in the same book Alwood includes an estimate of English cider production at "not less than 100 million gallons" at the time of his writing. Even allowing for considerable hyperbole and unrecorded consumption in the earlier period, this amount is far higher than the volumes assessed in the eighteenth century, implying at least some caution is warranted when writing of absolute volume declines.[8] Although the preponderance of evidence points to a significant reduction in cider's position in England after the late eighteenth century, production of the beverage continued to be an object of interest for farmers. A steady stream of manuals and

[6] Rosemary Robertson and Geoffrey Gilbert, *Some Aspects of the Domestic Archaeology of Cornwall* (Truro: Cornwall Committee for Rescue Archaeology, 1979), 4-5.
[7] Stone, *In Search of Cider*, 14-15.
[8] William B. Alwood, *A study of cider making in France, Germany, and England with comments and comparisons on American work* (Washington, D.C.: U.S. Govt. Print. Off., 1903), 26-7.

treatises with names such as *The Art of Making Cyder*, *The Cyder Maker's Instructor*, and *On Grafting, Planting, and Making Cyder*, were published throughout the eighteenth century, attesting to the continuing need for specialized production knowledge in some quarters.[9]

Given the persistence of apparent interest in growing the commodity, the question arises: why did cider become less common in England after the eighteenth century? Similar to the confluence of factors that beset production in the sixteenth century, there are a wide number of likely contributing reasons for this trend. The increasing ability of west-country farmers to ship their fruit to urban markets before spoiling occurred may have had a similar impact to that which the development of London's table fruit market exerted in the sixteenth century. In that earlier period this process led to significant reductions in Kentish cider production in favor of growing eating apples that fetched a higher price. Additionally, other beverages rose in popularity during the industrial era in England and supplanted the place of cider as a drink that was consumed throughout the day. For the first time in large quantities this included *non*-alcoholic drinks. Milk, tea, coffee, fruit juice, and even water all filled a role previously occupied by low-alcohol cider and beer.[10]

Broad economic trends also buffeted the profitability of the beverage. Cider had always relied on large amounts of labor relative to the amount of product produced, so rising labor costs during the eighteenth century made the drink harder to produce with reasonable returns. The apparent decline of some of the best-producing fruit varietals during this period, particularly the disappearance of the formerly ubiquitous *redstrake*, further exacerbated the economic standing of the drink by cutting orchard "yield per acre… in half when using new varieties."[11] Finally,

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[9] Ted Bruning, *Golden Fire: The Story of Cider* (Bedfordshire: Authors OnLine Ltd, 2012), 78.
[10] Adel P. den Hartog, "Changing Perceptions on Milk as a Drink in Western Europe," in *Drinking: Anthropological Approaches* ed. Igor de Garine and Valerie de Garine, (New York: Berghahn Books, 2001), 96.
[11] Roger French, *The History and Virtues of Cyder* (New York: St. Martin's, 1982), 26-7, 30-1.

high grain prices returned after 1750 in a new turn of the wheel in the alternative-agricultural cycle.[12] Previous exhortations to plant fruit trees in hedges and marginal areas that did not detract from grain growing may have been the ideological practice championed most frequently by cider improver writers, but many farmers had seized the drink's economic potential by converting good arable land to orchards. As high grain prices persisted from 1750 until the agricultural depression of the late 1870s, bolstered in part by the controversial Corn Laws of the early nineteenth century, there would have been increasing pressure to return these orchard lands to grain production.

As with the earlier rise of cider, economic necessity and cultural concerns mutually reinforced each other in driving the turn away from cider. Whereas during the previous century leading figures had lauded the liquor as healthy, godly, and *English*, moralizers of the eighteenth and nineteenth centuries increasingly associated it with idleness and drunkenness. The temperance movement in the United Kingdom, France, and the United States targeted producers as well as consumers, associating cider-production areas with drunkenness and successfully lobbying many cidermakers to turn their orchards to producing eating and cooking apples rather than those for cider.[13] Overconsumption of alcohol was less consistently recognized as a widespread problem in previous periods apart from general appeals against excess. Thus, when James I railed against "drunkennesse" in 1599, it was in the context of warning his subjects to "beware with using excesse of meat and drinke."[14] However, as liquor became increasingly viewed as a supplementary part of one's diet rather than a core component, many social groups

[12] Joan Thirsk, *Alternative Agriculture: A History from the Black Death to the Present* (Oxford: Oxford University Press, 1997), 147-150.
[13] John Henris, "Apples abound: Farmers, Orchards, and the Cultural Landscapes of Agrarian Reform, 1820–1860." PhD diss., (The University of Akron: ProQuest Dissertations Publishing, 2009), iii; Annie Proulx and Lew Nichols, *Cider: Sweet and Hard. Making it, using it, and enjoying it* (Charlotte, V.T.: Garden Way Publishing, 1980), 6.
[14] James I, *Basilikon dōron: Devided into three bookes*, (Edinburgh: Printed by Robert Walde-graue, 1599).

rallied against public and private intoxication.[15] Moralizing on this issue reflected economic divides, and as wealthier consumers gradually gained access to safe non-alcoholic beverages, cider consumption by poorer groups was seen more and more as a societal problem.[16]

The earlier decline of cider in the sixteenth century is instructive for showing how cultural sentiments against the beverage became reflected in, and were driven by, newfound medical concerns over its impact on drinkers. Cider in the seventeenth century was consistently upheld as the drink that "agrees best with our English Bodyes," but this discourse was dealt significant harm through the onset of the "Devon cholic" in the eighteenth century.[17] This initially mysterious disorder was noted to afflict cider drinkers late in the harvest season as vast quantities of the newly made beverage were consumed. Prior to determination of the cause, cider became associated with tremors, acute abdominal pain, vomiting, and kidney failure, significantly diminishing its reputation. Eventually, the debilitating effects of this disease would come to be recognized as resulting from acute lead poisoning, a metal that had been increasingly relied upon to join components in cider mills and presses by the eighteenth century. Over time, the high-acid content in fruit juice slowly broke down these lead parts, resulting in poisoning.[18] Lead-glazed earthenware vessels were also used to boil apple and pear pulp before fermentation in Devonshire (though not Herefordshire, perhaps accounting for the naming of the disease) to increase its sweetness, further exposing the drink to lead.[19] Finally, the use of "sugar of lead" to artificially sweeten cider was yet another way that the drink became entangled with exposure to

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[15] Richard W. Unger, *A History of Brewing in Holland 900-1900* (Leiden: Brill, 2001), 6-7.
[16] Sarah Hand Meacham, *Every Home a Distillery: Alcohol, Gender, and Technology in the Colonial Chesapeake* (Baltimore: Johns Hopkins University Press, 2009), 5.
[17] Francis Drope, *A short and sure guid[e] in the practice of raising and ordering of fruit-trees being the many years recreation and experience of Francis Drope*. Oxford: Printed for *Ric. Davis,* 1672, xii-xiii.
[18] Michael B. Quinion, *A Drink for its Time: Farm Cider Making in the Western Counties* (Hereford: Hereford Cider Museum Trust, 1979), 8.
[19] French, *History and Virtues of Cyder*, 66-69.

the dangerous material. Devonshire native son, George Baker, was accused of being "disloyal… to his native country" for accurately deducing the role of lead in the cidermaking process as the root cause of the disease, but by the time his observations were proven correct much damage had already been done to the drink's standing.[20]

Taken together, a cascading series of interlocking impediments condemned cider once more to ill repute and limited regional importance. The gains cider made in terms of both economic importance and broader cultural standing during the seventeenth and early eighteenth centuries were not fully undone, and the diminishment of the beverage in the nineteenth century was far from total. As cultural memory of the earlier heights achieved began to fade, later twentieth-century cidermakers would come to see even the diminished state of cider producers in the nineteenth century as a golden era of small producers using artisanal methods before industrial production methods became commonplace. Whether in terms of per-capita consumption, relative share of the alcohol market, or cultural cache, the period between 1650 and 1766 stands out as the true apogee of English cider.

II. Towards a Reciprocal Understanding of the Modern and the Early Modern through English Cider History

The historical relevance of English cider may be found not only in the heights production reached, but in the observation that such national peaks have been reached multiple times before falling back into regional obscurity once again. These cycles of decline and renewal demonstrate something peculiar to the drink itself, namely that the mode of its production and the traditional role that it filled in general farm management led to a reserve of knowledge that was retained at a

[20] Proulx and Nichols, *Cider: Sweet and Hard*, 10.

local level. These pockets of cidermaking skill persisted through wider national downturns and formed the base from which later upswings could be built upon. It is not coincidental that national cider improver writers like John Beale had direct connections with local cidermakers, as in his case with John Scudamore of Herefordshire, from whom they could learn the practices they later articulated to wider audiences. Such local, small-scale efforts were at terminal risk during low periods in cider's cycles and many did not survive to the point where later revitalization trends propelled the drink back to national prominence. The lack of a sustained cidermaking tradition in the eastern and southeastern counties in England despite widespread cultivation in the medieval period attests to the headwinds these local efforts faced when national conditions were unfavorable.

However, more important than what insights these cycles reveal about cider itself as a commodity are the lessons they convey about broader corresponding social tendencies. This study has sought to articulate the intersections between cider and social concerns in the seventeenth century, particularly as they revealed themselves in the goals of improvement writing**.** Cider became a linchpin in the projects of a loosely coordinated, if at times internally divided, set of promoters who utilized the malleable promise of the beverage to further public goals. Their designs ranged in scale from moderate, incremental attempts to ameliorate concerns including timber shortages, hunger among the poor, and worries over foreign imports, to much more radical and holistic projects that desired to transform the physical, spiritual, and social landscape of England. In turn, these approaches reflected competing currents within ideologies informing approaches towards improvement, the purpose of science, and a relationship with nature.

However, the connection between economic and cultural forces that drove, and continue to drive, cider's fluctuating fortunes also speaks to our current period's preoccupations and conditions as we undergo yet another resurgence in cider's popularity. Now, as in the middle of the seventeenth century, long-term commodity prices of a large basket of foodstuffs are at historic lows in real indexed terms, with a significant trough developing after the 1980s.[21] Joan Thirsk's fourth and last great period of alternative agriculture was dated from the 1980s for this reason, and she was quick to note the "rhythms" between the current cycle and earlier episodes, especially in terms of which products have resurfaced. Thus, for Thirsk, cider's reemergence has been but one of a large number of agricultural commodities returning to popular use, though of the many drinks she listed that have again found modern favor, she argued "cider ranks as the first drink to benefit from the more adventurous tastes of the consumer."[22] And, indeed, it has benefited considerably.

The recent recovery of cider has proceeded in both economic and cultural spheres. Cider drinking in the United Kingdom increased tenfold from 1960 to 2009 and the U.K. cider market is by far the largest in the world in terms of both absolute and per-capita consumption.[23] Culturally, cider has recovered from previous associations of the beverage with primarily lower-income drinkers, a reputation established in part due to an advantageous excise tax category that made it by far the least-taxed drink by unit of alcohol in the UK well into the twenty-first

[21] David S. Jacks, "From Boom to Bust: A Typology of Real Commodity Prices in the Long Run," *Cliometrica* 13(2) (2019), 202-220.
[22] Thirsk, *Alternative Agriculture*, 237, 241-2.
[23] Walter Minchington, "Competition and cooperation: The British Cider Industry since 1880," in *Competition and cooperation of enterprises on national and international markets*, ed. Hans Pohl (Franz Steiner: Stuttgart, 1997); Lesley Smith and David Foxcroft, "Drinking in the UK: An exploration of trends," *Joseph Rowntree Foundation* (May 2009).

century.[24] Cider has benefited from a host of larger social concerns around food manufacturing that bear resemblance to the moral concerns of seventeenth-century improver writers. The rise of a general approach towards agricultural production that rejects industrial methods, loosely covered under the term "organic farming," is curiously similar to the instauration projects of the Commonwealth era in the scope of the social, ecological, economic, and health concerns covered under its discourse. The modern organic movement even contains a millenarian streak that prophesizes societal rupture should its tenants not be adopted widely. Likewise, a renewed emphasis on local and small-scale "craft" drink production has begun to noticeably alter the cider industry. This trend has taken significant market share from industrial cidermakers, particularly in the south and west of England where orchards still preform best despite a warming climate. The resurgence of interest in propagating and consuming historical apple varietals, often with state support, has rescued much of the base material that better-grade cider was traditionally made from. Both craft producers and larger industrial cidermakers have consciously nationalized the beverage as an *English* drink in an effort to increase consumption in much the same way that occurred before. Finally, professional medical opinion of the drink is more ambivalent than in former eras, but a new generation of enthusiasts has embraced cider as a gluten-free alternative to beer and speculated about the benefits of antioxidants, recalling to mind earlier efforts to promote cider as an alternative to grain-based alcohols.

In the end, cider provides a point of reference from which to reflect on the concerns that motivate our current society in much the same way as it offers the historian a vantage into the workings of early modern England. The prospect that knowledge could be derived from the

[24] At 7.5% strength, cider was assessed at a rate roughly one-quarter that of beer in 2011: Tony Goodall, "White Cider and Street Drinkers: Recommendations to Reduce Harm," report by *Alcohol Research UK* (London: Alcohol Concern, 2011), 9.

product of fruit trees would have made intuitive sense to the cidermakers and writers covered in this dissertation. Their scriptural appreciation of knowledge would have been tinged with foreboding over the perils inherent in such forbidden fruit, though in Baconian fashion they sought to overcome these concerns and embrace nature's potential to aid in a recrafting of their society. Cider's potential as an object of historical inquiry is similarly limited in how directly the lessons from each swing in its cycle may be applied to corresponding periods. Despite cider illuminating similar rhythms between our period and theirs, the cyclical fluctuations between eras require careful treatment to discern what ties and separates us. Herein lies the spadework of the cider historian.

Ralph Austen believed that the tending of fruit orchards was an "implyoment fit for the best men" based on Adam's cultivation of them in the Garden of Eden. Austen thought Englishmen would "honour God, greatly profit themselves, the church, and commonwealth by their studies and labors in a garden of fruit trees."[25] The important element for Austen was not the fruit or the trees, but the act of gardening. Here John Evelyn was finally in agreement with Austen, writing: "A Paradise (though of Gods own Planting) was no longer Paradise then the Man was put into it, to dress it and to keep it; so, nor will our Gardens (as neer as we can contrive them to the resemblance of that blessed Abode) remain long in their perfection, unless they are also continually cultivated."[26] As cider's revolutions of decline and renewal continue to unspool in ways that provide fresh insights into the past, the historian of early modern England can benefit from such perspective, provided that awareness of these repeated cycles is not left to

[25] Ralph Austen, *The Spirituall Use, of an Orchard; or Garden of Fruit-Trees. Held forth in diverse Similitudes between Naturall and Spirituall Fruit-trees, in the Natures and Ordering according to Scripture and Experience* (Oxford: Printed by H. Hall for T. Robinson, 1657), 346-7.

[26] John Evelyn, *Kalendarium Hortense: or, the Gard'ners Almanac, Directing What he is to do Monethly throughout the Year, and What Fruits and Flowers are in Prime* (London: Printed by Jo. Martyn and Ja. Allestry, 1664), 1.

decay. John Norden therefore may as well have been writing about the harvest of cider history rather than Somerset when he quipped: "You speake of the Paradice of England, and indeed the husbandrie is good, if it be not decayed."[27]

[27] John Norden, *The surueiors dialogue: very profitable for all men to peruse, but especially for all gentlemen, or any other farmar, or husbandman, that shall either haue occasion, or be willing to buy or sell lands*... (London: Printed by I. W[indet] for I. Busby, 1607), 230.

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