HISTORY MATTERS

An Undergraduate Journal of Historical Research

Volume 22

May 2025

Appalachian State University

HISTORY MATTERS

An Undergraduate Journal of Historical Research

Volume 22 **May 2025**

RESEARCH ARTICLES

HISTORY MATTERS

An Undergraduate Journal of Historical Research

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Motherhood as a Eugenic Frontier
Mental Betterment in 1920s Saskatchewan

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McGill University

In the years following the First World War, demographic and social changes in rural Western Canada significantly impacted homesteading mothers and their role in the community. Amidst surges in immigration from areas deemed undesirable by the hegemonic British settlers, the discourse of racial "preservation" became increasingly enmeshed in ideas of physical and mental "fitness" in the emerging province of Saskatchewan.[1] As a result, there were both institutional and social movement responses to prevent mental "degeneracy." However, the Anglophone, British or British-Canadian ("Anglo-Saxon") settler population shifted between its characteristic prairie optimism and contempt in its approach to the mental degeneracy "problem."[2] While the government

[1] Marianna Valverde, "Racial Purity, Sexual Purity, and Immigration Policy," in *The Age of Light, Soap, and Water: Moral Reform in English Canada, 1885-1925* (University of Toronto Press, 2008), 106.

[2] Alex Deighton, "The Nature of Eugenic Thought and Limits of Eugenic Practice in Interwar Saskatchewan," in *Eugenics at the Edges of Empire: New Zealand, Australia, Canada and South Africa*, ed. Diane B. Paul, John Stenhouse, and Hamish G. Spencer (Springer International Publishing, 2018), 65.

opened new mental hospitals for segregation, the role of motherhood for preventing mental degeneracy was increasingly a theme in public discourse. Alongside the agrarian feminist movements of the time, the rise of mothers as the protectors of the race also provided a means for certain settler women to engage themselves in political initiatives and gain agency in their communities.[3]

The province of Saskatchewan, formally incorporated into the Canadian constitution in 1905 alongside Alberta, was a prominent destination for waves of settlers into the early 20th century.[4] While the land had long been stewarded by First Nations peoples, settlers sought to reimagine Saskatchewan and the region more broadly as a British frontier. This entailed not only the physical displacement of Indigenous peoples but also the ideological establishment of a Protestant, Anglo-Saxon identity grounded in British ideals.[5] In the aftermath of the Boer Wars and World War I, the Canadian West was fashioned by imperial powers as a site of racial and national regeneration; an opportunity to rebuild the British race through the development of a "strong" and "healthy" population.[6] Eugenics, a term coined in 1883 by Frances Galton as a scientific theory to describe heritable qualities, provided an ideological foundation for this vision.[7] In Saskatchewan, eugenic thinking manifested less through coercive legislation – as seen in Alberta's sterilization policy – and more through public health initiatives, education, and an increased encroachment of the

[3] Heather Green, "The Rise of Motherhood: Maternal Feminism and Health in the Rural Prairie Provinces, 1900-1930," *Past Imperfect* 20 (2017): 48-49.

[4] Randy William Widds, "Saskatchewan Bound: Migration to a New Canadian Frontier," *Great Plains Quarterly* 649 (Fall 1992): 255.

[5] Douglas Owram, *Promise of Eden: The Canadian Expansionist Movement and the Idea of the West, 1856-1900* (University of Toronto Press, 1992), 131.

[6] Green, "Rise of Motherhood," 50.

[7] Barbara Arneil, "Farm Colonies for the Irrational in Britain and Canada," in *Domestic Colonies: The Turn Inward to Colony* (Oxford University Press, 2017), 138.

state within domestic spaces. However, the methods of eugenic control in Saskatchewan were far from uniform, oscillating between a desire for aggressive intervention and more "benevolent" efforts such moral reform and mental hygiene.[8] Throughout this debate, the domestic space, and specifically motherhood, became a crucial conduit for enacting eugenic visions of racial and mental "fitness."

This paper examines the promotion of the mental hygiene movement in 1920s Saskatchewan and its specific relationship to motherhood. While much scholarship has focused on the relationship of maternal feminist movements to eugenics in Alberta, which implemented a sexual sterilization program in 1928, Saskatchewan's approach was more subtle but no less ideologically driven.[9] Rather than coercive policies, the province relied on educational messaging to prevent mental unfitness, demonstrating their eugenic intentions more insidiously and allowing their eugenics ideals to permeate into everyday life and domestic spaces. In this context, the role of motherhood emerged as a central pillar of nation-building that allowed it to be subject to both elevation and strict control within the framework of Saskatchewan's eugenics strategy.[10] Through analyzing messaging towards women in farming almanacs and public health advice, this paper argues that messaging surrounding motherhood utilized scientific and "progressive" language to enforce eugenicist mental health promotion. By contextualizing this messaging in a province actively engaged in various eugenics tactics, the elevation of Anglo-Saxon women as the gatekeepers of mental health will be shown to have played a key role in the nation-building project of 1920s Saskatchewan.

[8] Deighton, "Nature of Eugenic Thought," 65.
[9] Sheila Gibbons, "'Our Power to Remodel Civilization:' The Development of Eugenic Feminism in Alberta, 1909–1921," *Canadian Bulletin of Medical History* 31, no. 1 (April 2014): 138.
[10] Green, "Rise of Motherhood," 53.

Approaches to the Problem of "Mental Degeneracy"

At the turn of the twentieth century, the federal government of Canada adopted an "open door" policy for certain newcomers, leading to population growth of over 1780% between 1890 and 1921.[11] This benevolence towards immigration had notable exceptions: Asian immigrants were severely restricted, with the passing of the "Act Respecting and Restricting Chinese Immigration" in 1900 that placed taxes on Chinese newcomers.[12] Legislation was also proposed for limiting Black people from immigrating in 1911 but was ultimately repealed.[13] Rather, immigrants in the late nineteenth century were overwhelmingly of British descent, helping to distinguish the West as a new "British frontier."[14] However, as Saskatchewan's economy boomed into the 20th century, newcomers increasingly hailed from Eastern and Southern Europe, populations both considered sub-optimal by the British elite.[15] By 1920, the western provinces (Saskatchewan, Alberta, and Manitoba) were home to fifty-four percent of all foreign-born Canadians.[16] The high number of men who died during the First World War and a decreasing birth rate among the British ancestry line promoted anxiety among the Anglo-Saxon population.[17] As many of these settlers were eager to build a province where

[11] Widds, "Saskatchewan Bound," 255-56.
[12] Donald Avery, "Ethnic and Class Relations in Western Canada during the First World War: A Case Study of European Immigrants and Anglo-Canadian Nativism," in *Canada and the First World War: Essays in Honour of Robert Craig Brown*, 2nd ed., ed. David MacKenzie (University of Toronto Press, 2019), 275.
[13] Bruce Shephard, "Diplomatic Racism, Canadian Government and Black Migration From Oklahoma, 1905-1912," *Great Plains Quarterly* 3, no. 1 (1983): 5-8.
[14] Deighton, "Nature of Eugenic Thought," 65.
[15] Avery, "Ethnic and Class Relations," 274.
[16] Avery, "Ethnic and Class Relations," 274.
[17] Green, "Rise of Motherhood," 51.

British law and identity could prevail in the "new" frontier, non-Anglo immigrants threatened their imperial project.[18]

While anti-foreigner rhetoric had only occasionally been instrumentalized in direct reference to mental degeneracy in the early twentieth century, the First World War increased tensions towards the "foreigner" and fears surrounding the "quality" of the population.[19] There was also a rise in discourse surrounding the immigrant's propensity for mental degeneracy due to the psychiatrists and doctors who were enthusiastically adopting eugenics in their practice. Canada's most famous psychiatrist, C.K. Clarke, authored a eugenicist report in 1916 that concluded that immigrants were more vulnerable to mental degeneration.[20] Another prominent doctor, Helen MacMurchy, conducted studies and headed the mental hygiene movement in Central Canada. Her belief that the mental aptitude of the "imperial race" was threatened by hordes of foreigners was written into several of her publications and was highly influential.[21] MacMurchy and Clarke both used the word "degeneracy" as a broad term to connote those considered "feeble-minded," "mentally defective," and mentally ill or insane.[22]

Despite general animosity towards undesirable foreigners, the rise of "racial degeneration" rhetoric among the Saskatchewan public was not uniform. While some advocated for the use of sterilization, many remained

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[18] Cecily Devereux, *Growing a Race: Nellie L. McClung and the Fiction of Eugenic Feminism* (McGill-Queen's University Press, 2005), 64.

[19] Deighton, "Nature of Eugenic Thought," 65.

[20] Valverde, "Racial Purity," 108.

[21] Nadine Kozak, "Advice Ideals and Rural Prairie Realities: National and Prairie Scientific Motherhood Advice, 1920–29," in *Unsettled Pasts: Reconceiving the West through Women's History,* ed. Sarah Carter, Lesley Erickson, Patricia Roome and Char Smith (University of Calgary Press, 2005), 182.

[22] Neil Sutherland and Cynthia Comacchio, "Invariably the Race Levels Down: Mental Hygiene and Canadian Children," in *Children in English-Canadian Society: Framing the Twentieth-Century Consensus* (Wilfrid Laurier University Press, 2000), 74-75.

optimistic that immigrants could successfully assimilate.[23] As Wendy Kline has argued, there was a significant shift in the belief of causality between the parents and their children in the 1910s and 1920s, with increased emphasis on the importance on the early home environment and family relationships rather than purely genetic reasons for degeneracy. [24] While there was undoubtedly widespread belief that certain "feebleminded" individuals were beyond treatment and merited either sterilization or segregation, children raised in proper homes with the correct parenting were believed to be capable of becoming "at least useful citizens."[25] This notion of improvement is clear in medical inspection reports conducted in the 1910s on immigrants to Canada, where it was concluded that the "rehabilitation" of newcomers in "good, clean Canadian conditions" was possible.[26]

In Saskatchewan, interventions that ascribed to either environmental or hereditary explanations for degeneracy were not mutually exclusive and were often complementary. [26] There were efforts to segregate those deemed too "defective" alongside the promotion of education and health projects to prevent degeneracy. On the former approach, the Saskatchewan government built two large mental hospitals to "treat" those deemed mentally ill and disabled. The first was erected in North Battleford in 1914, while a second in Weyburn opened in 1921.[27] Both played key roles in the province's handling of its perceived problem of mental degeneracy. As described by Erika Dyck and Alex Deighton, these hospitals served to appease

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[23] Deighton, "Nature of Eugenic Thought," 65

[24] Wendy Kline, *Building a Better Race: Gender, Sexuality, and Eugenics from the Turn of the Century to the Baby Boom* (University of California Press, 2001), 26.

[25] Anon., "A New Outlook," *The Saskatoon Daily Star*, February 14, 1919.

[26] Deighton, "Nature of Eugenic Thought," 72.

[27] Erika Dyck and Alex Deighton, *Managing Madness: Weyburn Mental Hospital and the Transformation of Psychiatric Care in Canada* (University of Manitoba Press, 2019), 15.

population anxieties surrounding "race degeneracy" and played an integral role in interwar optimism in the province more broadly.[28] In a context where mental degeneracy was increasingly associated with the "foreigner" and enmeshed in the eugenics project, segregation was celebrated as a key element of the province's nation-building.[29]

To compliment the segregationist tactics of the Saskatchewan government, social reform and public health initiatives allowed for the expansion of mental hygiene objectives into the private homes of rural citizens. Improving the mental health of children was increasingly framed as an issue of public health, education, and ultimately dependent on a proper home life.[30] As many mental hygienists also believed that mentally defective children would become delinquents and criminals, a "proper" childhood was considered paramount.[31] This optimistic view of "improving" defectives allowed for the expansion of organizations and public health interventions to educate, control, and oversee individuals.[32] The role of parenting was an especially persistent theme throughout the 1920s, with the environmental causation of mental degeneracy providing a greater ability for the state to impose on the mother's role in her children's health.[33] As Saskatchewan was conflicted over the "problem" of the foreigner and government relentlessly debated imposing extreme measures like sterilization, changing attitudes towards motherhood reflect more insidious methods of controlling degeneracy among the population. An intense focus on preserving the health of infants through a proper upbringing became a central focus of government health policies and maternal feminist

[28] Dyck and Deighton, *Managing Madness*, 33-34.
[29] Deighton, "Nature of Eugenic Thought," 71.
[30] Sutherland and Comacchio, "Invariably the Race Levels Down," 74.
[31] Sutherland and Comacchio, 75.
[32] Valverde, "Racial Purity," 105.
[33] Kline, *Building a Better Race*, 24.

women's groups alike, as both strove to improve the "stock."[34]

Prairie Boosterism and Mental Betterment

In a province characterized by enthusiastic optimism for scientific advancements and assimilating both immigrants and the Indigenous population, messaging about motherhood served as an element of "racial betterment" in Saskatchewan's nation-building. The *Grain Growers' Guide*, a farming almanac printed widely in the prairie provinces between 1908 and 1936, exemplifies this through advice columns that ultimately intended to mold women into a British-Canadian ideal. The pamphlets were published by the Saskatchewan Grain Growers' Association, which was comprised of farmers that advocated for the interests of rural people in the early twentieth century. [35] Each *Guide* featured "Women's Sections," where activities and interests of homesteading women were recounted as well as providing advice. Throughout the 1910s and 1920s, notions of racial improvement and the role of the mother in preventing degeneracy are evident.[36] One article instructed mothers to be aware of their power in the home: "the mother has decidedly the most influence in her home and home surroundings… she who creates the future, is the maker of life and carer for life." [37] Similar articles emphasize the importance of the mother in protecting and ensuring the future of the race, such as an article from 1913 that states that "no nation may rise higher than its women," and that while every reputable man could be traced back to his mother's influence: "All outstanding bad men trace their badness to a bad mother…our nation has lost its best ideals.

[34] Valverde, "Racial Purity," 105.

[35] Barbara Kelcey and Angela Davis, *A Great Movement Underway: Women and The Grain Growers' Guide (1908-1928)* (Manitoba Record Society, 1997), xi-xii.

[36] Kozak, "Advice Ideals," 186.

[37] Saskatchewan Grain Growers' Association, "The Home," *The Grain Growers' Guide*, March 6, 1912, 35.

It is up to the home to re-establish the old character of our forefathers, and this depends on the mothers."[38]

The *Grain Growers' Guide*'s emphasis on the mother's influence allowed for the promotion of the individual in their responsibility of either protecting or degenerating society. Preserving the children's mental state was increasingly fashioned as the responsibility of the mother, often with empowering language. For example, a writer optimistically wrote in one *Guide*: "No [child] need inherit consumption or insanity… we have it in our power to mould our children as we will."[39] Other articles communicate the fundamental role of mothering, such as in a mother's advice column of the *Guide* from 1924: "the advance to betterment must be made by the individual… Individual carelessness becomes community menace."[40] The importance of the mother's role in these passages reflects a specific form of prairie boosterism, an exaggerated form of optimism that encouraged economic expansion through aggressive civic pride in the rural West.[41] As progressive community and farmer solidarity movements in Saskatchewan advocated for individual actions in working together for the nation, they promoted cooperation that boosted the agency of citizens while simultaneously connecting the degenerate mother to the downfall of the nation.[42] Rather than enforce their eugenicist ideals with overt coercion or sterilization that was eventually seen in other provinces, Saskatchewan's promotion of self-surveillance allowed for a more insidious eugenics project to occur. In a nation fashioning itself as a new imperial frontier with British ideals of freedom, the promotion of mental betterment through the mother proved

[38] Saskatchewan Grain Growers' Association, "Saskatchewan Section," *The Grain Growers' Guide*, May 21, 1913, 10.
[39] Letter from Mrs. T.E Williams, Skipton, Saskatchewan, "Race Suicide," in *Grain Growers' Guide*, February 28, 1912, Manitoba Records Society.
[40] Saskatchewan Grain Growers' Association, "Isobel—Around the Fireside," in Grain Growers' Guide, February 22, 1911.
[41] Dyck and Deighton, *Managing Madness,* 42.
[42] Dyck and Deighton, *Managing Madness*, 43.

to be a happy medium between the extremes of eugenic thinking.[43]

Constructing "Good" Mothers to Shape Saskatchewan

The danger of bad mothering to the mental state of her offspring is clearly communicated in a variety of sources at the time, such as newspaper articles in the *Saskatoon Star* that warned against the "degraded home" in producing degenerate children, and the rampant problem of immigrant children becoming degenerate due to poor assimilation.[44] Concerns regarding the "ignorance" of children also abound, again blamed on the mother. For example, a 1921 column in the *Star* complained about mothers who had been too "criminally and eternally silly" to rein in the ignorance of their sons and daughters, thus resulting in degeneracy in the grown children.[45] A *Grain Growers' Guide* columnist reported in 1924 that the mother is the "baby's worst enemy" in instances of improper care. By emphasizing the danger of a "bad" mother, women who did not resemble the ideal – White, Anglo-Canadian, and middle-class – could be considered at risk of producing mental degeneration. At the same time, in emphasizing the role of the environment, the project of nation-building in Saskatchewan could extend far into the privacy of the home to fear-monger of the dangers of maternal ignorance in producing degenerate offspring.[46] In the *Grain Growers' Guide,* the messaging following the descriptions of "bad" mothers often verged on the didactic, thus emphasizing the proper way to raise children such that degeneracy could be avoided.

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[43] Valverde, "Racial Purity," 105.

[44] H.A. Bruce, "As to the Subnormal," *Saskatoon Daily Star*, August 4, 1924, 4; "Juvenile Court Discussed before Women's Council," *Saskatoon Daily Star*, April 2, 1919, 4.

[45] W.W. Smith, "Home-Brew," *Saskatoon Daily Star*, September 12, 1921, 15.

[46] Arnup, *Education for Motherhood*, 118.

The contrasting depictions of ignorant or proper mothers served to also reinforce racial hierarchies. As Molly Ladd-Taylor and Lauri Umansky have described, the construction of good versus bad motherhood in the early 20th century was highly race and class-related, with the former type being increasingly associated with scientific ideals and knowledge, and the "bad" with breeding feeble-minded offspring.[47] In this sense, the construction of good, scientific mothering in newspapers and the *Grain Growers' Guide* subliminally reinforced the category of bad motherhood alongside it. In its use of language like "degeneracy" and "ignorance," this messaging implicitly categorizes motherhood along racial lines as a eugenic protection of whiteness that could be contrasted with the racialized notion of bad mothering.

This is also exemplified in the *Canadian Mother's Book* (1925), one of a series colloquially termed the *Blue Books*, which were written by the doctor and eugenicist Dr. Helen MacMurchy and distributed widely by Canada's Department of Health. The book features advice for new mothers on raising children the "Canadian way," with a particular emphasis on preserving the physical and mental health of the child, who was almost always gendered male. One section pertains to "Natural Repression and Morbid Suppression," which describes the critical period of a child's life in which he learns to "repress urges."[48] In meticulous and scientific detail, it claims that this critical moment of learning determines the regulation of his mental faculties later in life, stating that wrong mothering could result in an internalization of a "foolish mother's punishment" in a man's nervous system. Given the belief that mental degeneration negatively impacted an individual's self-control, this section links the child's parenting to a risk of

[47] Molly Ladd-Taylor and Lauri Umansky, "*Bad" Mothers: The Politics of Blame in Twentieth-Century America* (New York University Press, 1998), 11.

[48] Helen MacMurchy, *Canadian Mother's Book* (Department of Health, 1925), 152.

degeneration.[49] By instructing the readers on how to properly raise their children, they communicated a desire for both improving children and preventing their degeneracy. Along with books titled *How we Cook in Canada* and *Beginning a Home in Canada*, the Department of Health had clear intentions of pushing a certain type of motherhood that was acceptable to the Anglo-Saxon majority.[50]

Guidebooks such as *Canadian Mother's Book* not only served a didactic function but allowed for the Anglo-Saxon mother to gain agency in her own home. The description of how to properly discipline a child and ensure its mental growth is incredibly detailed, with scientific language bestowing a special importance to the mother's involvement in her child's mental development. Its promotion of mental and physical health through the actions of the mother elevated the role of the mother as the gatekeeper of health while simultaneously being responsible for the degeneracy of her offspring.[51] In fact, the promotion of motherhood in the rural West was intrinsically related to the agrarian feminist movement.[52] These movements in 1920s Saskatchewan purported to promote the development of the province through the political equality of farming women. As the homestead was conceptualized to be the "basis of civilization," the mother's role gained a greater importance in nation-building and eugenic project.[53] In this sense, Saskatchewan's eugenic project approach relied heavily on the elevation of women as the protectors and improvers of its nation. While it could claim segregation as a solution in the asylums, its optimistic and prairie booster mentality required community-based alternatives that could give its population a sense of agency and control in the face of fears of degeneration.[54] By linking the province's progressive

[49] Kline, *Building a Better Race*, 27.
[50] Kozak, "Advice Ideals," 189.
[51] Devereux, *Growing a Race*, 55.
[52] Gibbons, "Our Power to Remodel Civilization," 138.
[53] Gibbons, "Our Power to Remodel Civilization," 131.
[54] Valverde, "Racial Purity," 105.

movements to the salvation of the race and placing these responsibilities in the hands of the mother, Saskatchewan could accomplish both goals simultaneously.

"Good" Mothers and Community Surveillance

The didactic aspects of these guidebooks also allowed for the Anglo-Saxon woman to gain authority in surveilling her community, especially in rural contexts that lacked access to expert care. While it is difficult to determine how much the advice in the *Canadian Mother's Book* and the *Grain Growers' Guides* integrated into rural women's daily lives, it is likely that in the absence of many of the health services urban women had access to, rural women would have relied heavily on community support or written sources for health information.[55] The *Canadian Mother's Book* and the *Grain Growers'* articles were incredibly popular and widely available across Saskatchewan. It is estimated that over 72,000 women received the *Canadian Mother's Book* free of charge across Canada, with widespread distribution by the government, women's associations, and the Red Cross.[56] The Grain Growers' Guide amassed a loyal readership, reaching upwards of 82,000 subscriptions in 1921 out of a greater rural prairie population of around 1.25 million.[57]

Given their widespread reach, their content likely bolstered the legitimacy of Anglo-Saxon women in educating the "degenerate mothers" within their communities. As Cecily Devereux describes, white women in British colonies took on the role of educating other women, to "lift up the lower 'races,' if not to equality at least to the status of well-behaved and grateful children, and most importantly, to mark and maintain the boundaries of whiteness."[58] By

[55] Upon its publication in 1925, *The Toronto Star* specifically advertised the *Blue Books* as an invaluable source for rural women and those living far from medical care. See Arnup, *Education for Motherhood*, 134-35.
[56] Kozak, "Advice Ideals," 187.
[57] Kozak, "Advice Ideals," 188.
[58] Devereux, *Growing a Race*, 54-55.

enmeshing proper motherhood within a framework of scientific authority and whiteness, the *Canadian Mother's Book* especially granted authority for Anglo-Saxon women to regulate and monitor women around them. This was also compounded by the fact that they were printed primarily in English, therefore being inaccessible to both illiterate and non-Anglophone mothers. In this sense, as the *Canadian Mother's Book* were government-sanctioned, these documents may have provided legitimacy for educated, middle-class, Anglo-Saxon mothers to gain authority in their communities to enforce their method of mothering as the "right" one, especially in highly rural locations where there was little access to doctors to consult.

The promotion of proper motherhood and the agency it provided to certain women also established a space for their increased engagement in community and governmental initiatives. As is evident in reports from the Grain Growers' Associations, women's divisions (which would have been comprised primarily of Anglo-Saxon women) were fundamental in gaining health and child welfare reforms as well as in developing mechanisms for preventing mental degeneracy and carrying out surveys of the mental health of their communities. For instance, the Saskatchewan Grain Growers' Association report from 1926 highlighted that "the Women's Section was largely instrumental in securing a survey of abnormal mental conditions."[59] Another motion of the report was to request the requirement of "mental inspections" of immigrants, thus furthering emphasizing the connection of the foreigner to mental degeneracy.[60] In this sense, the construction of a nation-betterment approach through the Associations' almanac, alongside the federal government's public health campaigns served to create an enforcement strategy within the private space of the home.

[59] Saskatchewan Grain Growers' Association, *A quarter century of progress: A partial record of the activities of the S.G.G.A. from 1901 to the present time* (1926), 17.

[60] Saskatchewan Grain Growers' Association, *A quarter century of progress*, 42.

While Saskatchewan may have continually vacillated on its approach to the eugenics project, its clear linking with motherhood allowed for insidious ways of enacting control and policing of citizens well beyond the asylums.

The State in the Home: Setting the Stage for Child Welfare

The push for the conceptualization of the mother as a safe guarder of health also minimized pressure on the government to enact meaningful health supports within communities.[61] As described by Alex Deighton, fears of the danger of mental degeneracy among eugenicists in the province did not necessarily translate into more admissions in hospital asylums.[62] Several historians have argued that the mental hospitals in Saskatchewan ultimately served more symbolic than curative purposes, with the general goal of segregating those deemed too dangerous for the general population. This is evident by the fact that at the beginning of the 1920s, the majority of patients at the mental hospitals in Saskatchewan were committed by being transferred from prisons or other mental illness wards, rather than from an influx of patients due to the panic surrounding mental degeneracy.[63] It was also common knowledge by the mid-1920s that asylums were incredibly expensive for the province, especially given the fact that cure rates were low. Public health efforts that could minimize public spending by committing individuals, while still demonstrating the government's commitment to the "mental degeneracy problem," were therefore highly appealing.[64] As such, messaging and advice to mothers that could increasingly place the onus on the home environment rather than public institutions served to contribute to the mother's importance in preventing mental degeneracy.

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[61] Arnup, *Education for Mothers*, 25
[62] Deighton, "Nature of Eugenic Thought," 67.
[63] Dyck and Deighton, *Managing Madness*, 51.
[64] Dyck and Deighton, 57.

In addition, the provincial government in the early years of the 1920s was hesitant to overstep the bounds of privacy, and thus the child's well-being was still within the sole purview of the mother.[65] Her role as the one primarily responsible for offspring's health and mental capacities allowed Saskatchewan to circumvent responsibility in the standardization and expansion of health and social services.[66] However, as eugenic rhetoric evolved over the course of the 1920s, partly due to the messaging surrounding the responsibility of the mother in degeneracy, the state became increasingly pressured to engage in private matters of the home. In 1927, the Saskatchewan Child Welfare act was passed, sanctioning a number of children admitted to Weyburn Hospital and the asylum in North Battleford.[67] Eugenic rhetoric laid the foundation for the legislation, which was motivated by individuals and organizations who pushed for increased protection of children and infants.[68] Much of this advocacy was indeed headed by women's divisions of organizations like the Grain Growers' Association. Advice columns from the *Grain Growers' Guides* in the early 1920s highlight the inadequacy of lower-class mothering, with anecdotes of babies being neglected in the cold winter by their ignorant mothers.[69] Through the entrenchment of fitness into ideals of parenting, messaging surrounding the mother's inadequacy demonstrates the increased connections and over-reach of the state into the

[65] Deighton, "Nature of Eugenic Thought," 66.
[66] Kozak, *"Advice Ideals,"* 184.
[67] Dyck and Deighton, *Managing Madness*, 79.
[68] Karolina Kowalewski and Yasmin Mayne, "The Translation of Eugenic Ideology into Public Health Policy: The Case of Alberta and Saskatchewan," in *Proceedings of the 18th Annual History of Medicine Days Conference 2009: The University of Calgary Faculty of Medicine, Alberta, Canada*, ed. Lisa Peterman, Kerry Sun, and Frank W. Stahnisch (Cambridge Scholars Publishing, 2012), 63.
[69] Laura S.M. Hamilton, "Forming Baby's Habits," *Grain Growers' Guide* 13, no. 29 (July 21, 1920): 28; "Fall Babies," *Grain Growers' Guide* 13, no. 41 (October 13, 1920): 29.

home. While child protection legislation was beneficial to many children, it also sanctioned the disproportionate surveillance of immigrant, Indigenous, and lower-class mothers, often with the intention of "Canadianizing" their children.[70] By the late 1920s, while the province was in the process of debating sterilization, their anxieties of mental degeneracy can be understood as being inextricably linked to motherhood and controlling children's early environment.

This success for Anglo-Saxon women of progressive legislation increasingly placed blame on mothers for their hand in mental degeneracy, adding to the numbers of "feebleminded" mothers and their children admitted to institution. [71] While the position of mothers as the gatekeepers of mental health allowed for certain women to be the driving force for child protection, the legislation can be understood as being enabled by the decades' previous messaging of women's culpability. This sentiment is paraded by the Saskatchewan Grain Growers' Association's reports: "The Saskatchewan Grain Growers' Association was probably the first body in Canada which gave women her proper place in its activities and is councils – exactly the same status as that held by men."[72] It boasted in another report that the women's division of the Association was mobilizing for the detection of degeneracy in immigrant families and pushing for child protections to handle it.[73] This duplicity underscores the joint initiative of the eugenics project and agrarian feminism. In their dual process, the goals of each movement were in turn enforced in reprimanding and denouncing the problem of the "foreigner," while providing more agency to the Anglo-Saxon woman to establish

[70] Kimberly Anne Marschall, "Raising Juvenile Delinquents: The Development of Saskatchewan's Child Welfare Laws, 1905-1930," (Master's thesis, University of Saskatchewan, 2003), 60-61.

[71] Dyck and Deighton, *Managing Madness*, 79.

[72] Saskatchewan Grain Growers' Association, *Romance of the Grain Growers: History, Aims, and Objects*, 1916, 5.

[73] Saskatchewan Grain Growers' Association, *A quarter century of progress*, 42.

dominance in policing other mothers who were producing "degenerate" offspring. Thus, in a province shifting between segregating versus bettering its "degenerate" citizens, rural women could serve as an ideal figure to promote, enforce, and embody mental health ideals.

Conclusion

Saskatchewan's efforts to fashion itself as both a British frontier and a progressive nation of individual liberty were intrinsically related to its eugenicist goals. In providing certain white Anglophone women the authority in their homes and communities to gain status as the gatekeepers of mental health, they could accomplish both simultaneously. While a larger investigation into the readership of the *Grain Growers' Guide* and the *Canadian Mother's Book* is beyond the scope of this paper, their promotion and glorification of Anglo-Saxon motherhood demonstrates the importance placed on preventing degeneracy. In constructing these ideals of proper motherhood, this messaging simultaneously communicates its opposite – the "bad" mother that readers could aim to deviate from. As "ignorant" mothers were increasingly referred to as the cause of mental degeneracy and nervous system breakdown in their children, motherhood can be seen as both a fundamentally important, yet highly restricted, role for women. In the absence of robust health services or child welfare legislation in the early 1920s, the linking of the mother to her offspring's mental fitness ultimately demonstrates the responsibility placed on the individual rather than on the government. These connections are abundantly clear in the public discussions and advice documented in the *Grain Growers' Guide* and the *Canadian Mother's Book*, where race, gender, and mental fitness are all inextricably linked in the imperial project of building Saskatchewan.

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Signed, Sealed, Delivered
An Examination of Pedro de San Agustín's *Pintura de Culhuacán*

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In the mid-1570s, King Philip II of Spain was fighting a battle for imperial control across the Atlantic. To ensure the success of this religious and political mission, Philip needed to gather geographic and societal information about the New World colonies. To do so, he appointed court chroniclers and established a special division, the Council of the Indies.[1] One project of this new division, headed by Lopez de Velasco, the recently-appointed *cosmógrafo-cronista mayor*, called for each town to complete a fifty-prompt questionnaire entitled the *Relaciones Geográficas de Indias*.[2] The tenth question of this document prompted New World Spanish administrators to produce a

[1] Barbara Mundy, *The Mapping of New Spain: Indigenous Cartography and the Maps of the Relaciones Geográficas* (University of Chicago Press, 1996), 11-23.

[2] Howard F. Cline, "The Relaciones Geográficas of the Spanish Indies, 1577-1586," *The Hispanic American Historical Review* 44, no. 3 (1964): 363-71; Mundy, *The Mapping of New Spain*, 20; For the full printed list of questionnaire questions, see Cline's "Relaciones Geograficas."

pintura, or map, of the region.[3] In many towns, the Spanish delegated the pintura's creation to Indigenous artists.[4] Pedro de San Agustín was one such Indigenous artist selected to represent his hometown of Culhuacán.[5] San Agustín's complex identity within and between Indigenous and Spanish colonial communities as a *natural* (native), *hombre ladino* (Hispanicized Indigenous person), and politician informed his material and stylistic decisions in the *Pintura de Culhuacán* as he worked to represent both his town and himself to the Spanish and their king, Philip II.

San Agustín's *Pintura de Culhuacán* (Fig. 1), dated January 17th, 1580, presents a view of the artist's hometown of Culhuacán, Mexico. Produced on a sheet of Indigenous amate paper, the work centers on a gridded system of footprint-covered streets that surround a main building labeled "*comunidad*" (community) and an Indigenous glyph. A series of waterways pass through the main square, branch across the pintura, and extend off the page. Scattered across the composition are a series of labeled parishes, some presented in three-quarters view, which loom over the countryside. The largest of these, labeled San Juan Evangelista, sits on a streetcorner across from two landmarks drawn in fading brown ink, the *molino de papel* (paper mill) and *estanque* (pond). A mountain painted in greens and browns dominates the top of the pintura. Visible along the surface of the work are various seams, creases, and patches accompanied by areas of water staining. The second half of this article posits that San Agustín, in preparing Culhuacán's

[3] Importantly, Mundy notes that "pintura" and "map" do not hold precisely the same connotations. The word used today for map, *mapa*, was not used that way in the sixteenth century.

[4] Mundy, *The Mapping of New Spain*, 61.

[5] Throughout this article, Pedro de San Agustín's name will be shortened to San Agustín, a name likely provided to him upon his baptism. For more information regarding colonial naming conventions in the New World, see María Elena Villegas Molina and Rosa Brambila Paz, "Hispanic Surnames in Central-North of New Spain, 16th Century," *Onomástica Desde América Latina* (2020).

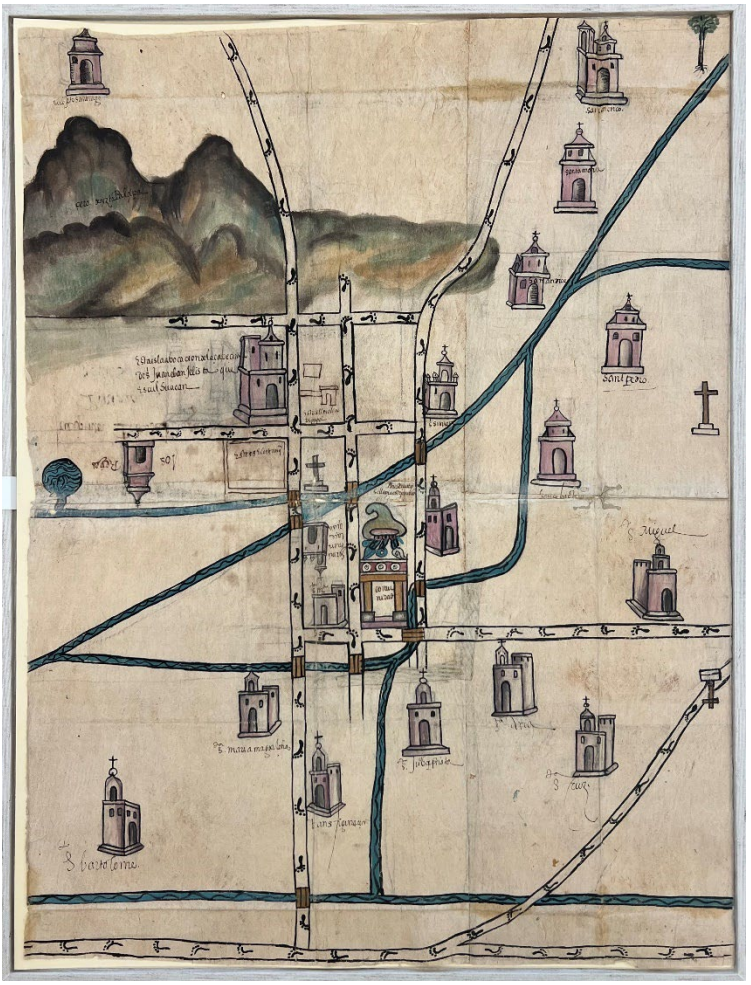

Figure 1: *Pedro de San Agustín,* Pintura de Culhuacán*, 1580, LLILAS Benson Latin American Studies and Collections. (Courtesy of the Collections at the University of Texas at Austin Libraries).*

contribution to the project for transportation across the Atlantic, folded his *Pintura de Culhuacán* into an envelope to contain the written *Relación de Culhuacán*. This hypothesis gives heightened agency to the Indigenous artists of the Relaciones Geográficas that has not been previously explored and prompts reconsideration of the way the Spanish received works like the *Pintura de Culhuacán* in Spain.

Throughout his reign, Philip enlisted artists and cartographers like Anton van den Wyngaerde and Pedro de Esquivel to draft maps of his territories.[6] When it came time to map the colonies in the New World, Philip predictably looked for what had served him in the past: geographically accurate representations of major landmarks supplemented with cultural information about the region provided in written questionnaires. With the possibility of rebellion at the forefront of his mind, Philip understood the value of Velasco's project as one that would let him both visualize the New World and control it. Interpreting this material requires an understanding of the different ways Spanish and Indigenous figures approached the Relaciones Geográficas project. This article explores the complexity of San Agustín's identity, artistic decisions, and successes as he presented his culture to his colonizers.

In 1964, Howard F. Cline published his "The Relaciones Geográficas of the Spanish Indies, 1577-1586," a historiographical article that compiled the limited scholarship completed on the Relaciones Geográficas and crucially provided an English translation of the questionnaire. [7] Cline's archival approach provided information about the number, types, and creation dates of the maps and questionnaires, but it was Barbara E. Mundy who contextualized much of Cline's work. Her 1996 book, *The Mapping of New Spain*, placed Spain at the time of the Relaciones Geográficas within a greater art historical context.[8] Mundy noted the presence of Flemish mapmakers and European mapping tradition in Spain as she revealed the great divide between the works Velasco expected and the pinturas he received. Building on Mundy's work, this article suggests that the political tension during the first decade of

[6] Colin Dupont, "Creating Philip II's Vision: Urbs and Civitas in the Town Maps of Jacob van Deventer (1558–1575)," *Imago Mundi* 73 (2021): 17; Geoffrey Parker, *Philip II* (Little, Brown and Company, 1978), 47-48.

[7] Cline, "The Relaciones Geográficas," 341-74.

[8] Mundy, *The Mapping of New Spain*, 2-3.

the Eighty Year's War strengthened the Spanish Crown's thirst for maps of their New World colonies.

Mundy also considered the role of the Indigenous artist within the Relaciones Geográficas' story. This article expands on Mundy's description of Indigenous artists, highlighting the social and political influence artists like San Agustín required to be chosen for the project. As evidenced by S. L. Cline and Miguel León-Portilla's edition of the *Testaments of Culhuacán* and S.L. Cline's *Colonial Culhuacán 1580-1600*, San Agustín's position as *alcalde*, a political post with judicial responsibilities held by Indigenous elites, impacted both his selection as mapmaker and his style and purpose.[9] Ana Pulido Rull's 2020 book, *Mapping Indigenous Land: Native Land Grants in Colonial New Spain*, supplements Relaciones Geográficas research with a foundational discussion of land grant maps. This article draws on the history of land grant maps to describe San Agustín's position of Indigenous alcalde as it relates to colonial mapping tradition.[10]

In one of the few published studies of the *Pintura de Culhuacán*, "Mapping Identity: Defining Community in the Culhuacán Map of the Relaciones Geográficas," Diantha Steinhiper discussed San Agustín's use of Indigenous conventions to convey a sense of Nahua community.[11] A close visual analysis of the *Pintura de Culhuacán* combined with the added glossing and placement of the artist's signature reflects the importance this work had on both San Agustín's identity the political career.[12] This article examines the

[9] S. L. Cline and Miguel León-Portilla, *The Testaments of Culhuacán* (UCLA Latin American Center Nahuatl Studies, 1984); S. L. Cline, *Colonial Culhuacán, 1580-1600: a Social History of an Aztec Town* (University of New Mexico Press, 1948).

[10] Ana Pulido Rull, *Mapping Indigenous Land: Native Land Grants in Colonial New Spain* (University of Oklahoma Press, 2020).

[11] Diantha Steinhiper, "Mapping Identity: Defining Community in the Culhuacán Map of the Relaciones Geográficas," *Journal of the Washington Map Society* (2009).

[12] Antonio Sánchez Martínez and Jose Pardo-Tomas, "Between Imperial Design and Colonial Appropriation: The Relaciones

Pintura de Culhuacán's paper, paint, and ink to reveal new insights into the life of the pintura and challenge published conceptions of the role of Indigenous artists working on the Relaciones Geográficas. While Mundy used the case of San Agustín to argue that, once commissioned to create the town's pintura, Indigenous artists completed their work separately from the Spaniards drafting the written relación, this article demonstrates that San Agustín viewed the written *Relación de Culhuacán* before sending the *Pintura de Culhuacán* to Spain and played a key role in preparing the documents for travel across the Atlantic.[13]

This article also follows the *Pintura de Culhuacán* on its journey to Spain and explores how the Spanish understood, or more appropriately, misunderstood, San Agustín's method of communicating. Elizabeth Hill Boone's work interprets Mesoamerican writing systems as interweaving written word, graphic representation, and speech. [14] Expanding on Mignolo and Boone's work, this article examines the Information Divide between Spain and the New World, pulling details from material and historiographic analyses to describe the reception of San Agustín's pintura in Spain.

Signed: Pedro de San Agustín as a Natural of Culhuacán

Before serving Culhuacán as *alcalde*, a prestigious political figure who served on the city council and managed judicial affairs, San Agustín lived and studied in the town as an elite *natural*. [15] The *Tesoro de la Lengua Castellana o Española*,

Geográficas de Indias and Their Pinturas as Cartographic Practices in New Spain," *Bulletin for Spanish and Portuguese Historical Studies* (2015).

[13] Mundy, *The Mapping of New Spain*, 65.

[14] Elizabeth Hill Boone, *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs* (University of Texas Press, 2000), 27.

[15] Cline and Leon-Portilla, *The Testaments of Culhuacán*, 100; John F. Schwaller, "Alcalde vs. Mayor: Translating the Colonial World," *The Americas* 69, no. 3 (January 2013): 395; Theodore Grivas,

published in 1611, characterized a *natural* as, "el que nació y tiene su parentela en Toledo" ["one who was born and has his relatives in Toledo"].[16] Expanding this definition, *natural* describes an individual deeply connected to their place of birth who maintains a high level of understanding and respect for their home. San Agustín, likely having learned to read, write, and paint at the Augustinian monastery in Culhuacán, went on to present his home with the knowledge and pride expected of a *natural* of the town.[17] It was San Agustín's intimate understanding of Culhuacán and its significance that informed the material and stylistic choices used in the *Pintura de Culhuacán* to define the town socially, politically, and historically.

There was not much Spanish presence in Culhuacán when San Agustín completed the *Pintura de Culhuacán* in January of 1580. In comparison to 3,600 Indigenous natives, likely only four Spanish leaders lived in the city: the *corregidor* (Spanish administrator), two friars, and one Augustinian prior.[18] Two of these Spaniards, Gonzalo Gallegos, the *corregidor*, and Fray Juan Nuñez, a friar, worked on and signed the *Relación de Culhuacán.*[19] Nevertheless, Culhuacán was, to the Spanish, an Augustinian city.

The Augustinians arrived in Mexico in 1533 and established 140 missions throughout the area before leaving in the mid-eighteenth century.[20] These evangelization

"Alcalde Rule: The Nature of Local Government in Spanish and Mexican California," *California Historical Society Quarterly* 40, no. 1 (March 1961): 15-16.

[16] Sebastián de Covarrubias, *Tesoro de la Lengua Castellana o Española* (1611), Edición preparada por Martín de Riquer (Real Academia de Buenas Letras, 1943): 824.

[17] Mundy, *The Mapping of New Spain*, 82-3.

[18] S. L. Cline, *Colonial Culhuacán,* 7.

[19] S. L. Cline, *Colonial Culhuacán,* 7.

[20] Maria Waldinger, "The Long-Run Effects of Missionary Orders in Mexico," *Journal of Developmental Ethics* 127 (2017): 357; Cline, *Colonial Culhuacán*, 357; Juan Estarellas, "The College of Tlatelolco and the Problem of Higher Education for Indians in 16th Century Mexico," *History of Education Quarterly* 2, no. 4 (1962): 238.

projects emphasized the education of the Indigenous population in the areas of writing, reading, singing, painting, and playing music. The Spanish Crown, rather than the Pope, organized and funded the missions' work in the New World.[21] This guise of Catholic evangelism allowed the Spanish to justify their colonial mission and claim souls for the Church. Hence, Augustinian education was not aimed at developing well-rounded Culhuacán citizens, but at training and converting New World inhabitants to Catholicism. San Agustín, however, employed the skills refined during his time at San Juan Evangelista not only to spread Christianity, but also to communicate Culhuacán history, Indigenous claims to land, and his role as a *natural* of Culhuacán.

To learn the skills necessary to accomplish this task, San Agustín would likely have been sent to Culhuacán's Augustinian monastery, San Juan Evangelista, around the age of eight. For the next seven years, he would learn from local friars likely trained in ministry in Mexico City.[22] Augustinian friars connected the writing and artistic skills developed during this time back to the Catholic mission.[23] Training Indigenous artists were often the individuals honing their skills on the frescoes like those which remain on the walls of San Juan Evangelista. Mundy suggests that it is likely that San Agustín's hand can be seen on the walls of the convent.[24] Even if we cannot connect San Agustín directly to the San Juan Evangelista mural series, it would have been these types of doctrine-based projects that would have formed his earliest Augustinian studies.

The presentation of the nineteen parishes dotted along the *Pintura de Culhuacán's* landscape evidence San Agustín's artistic training. Fourteen of these buildings display the three-dimensionality common in sixteenth-century

[21] Waldinger, "The Long-Run Effects," 357.
[22] Estarellas, "The College of Tlatelolco," 238.
[23] Carlos Fernando Lopez de la Torre, "El Trabajo Misional de Fray Pedro de Gante," *Universidad Nacional Autánoma de Mexico* (2015): 96-99, 107-109.
[24] Mundy, *The Mapping of New Spain*, 65.

European maps.[25] This three-quarter view was not part of pre-contact Indigenous artistic tradition, suggesting its arrival in the New World on Spanish ships.[26] Other pinturas from across the region, like the *Pintura de Cempoala*, employ this three-quarters style. This technique was widely taught as a European convention for depicting churches. However, as seen on both the *Pintura de Culhuacán* and the *Pintura de Cempoala*, this use of three-dimensionality did not extend to other structures. For example, Culhuacán's comunidad building is more similar in form to buildings in pre-contact Indigenous tradition.[27] Hence, San Agustín's representation of Culhuacán reflects both his Augustinian education and his connection to pre-contact Culhuacán.

In addition to *natural*, it would have been appropriate to call San Agustín an *hombre ladino*, the term used to describe Indigenous individuals who had been "Hispanicized" and served as intermediaries between the Spanish and native populations.[28] The *Tesoro* described *ladino* by writing, "al estrangero (extranjero) que aprendió nuestra lengua, con tanto cuidado que apenas le diferenciamos de nosotros, *ladino*" ["we also call the foreigner, who learned our language with such care that we barely differentiate him from us, *ladino*"].[29] *Ladino* men were central to the conversion mission in the New World serving as educators capable of crossing cultural boundaries to reach broader Indigenous populations.[30] While San Agustín's identity as a *natural* of Culhuacán informed the content of his *Pintura de Culhuacán*,

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[25] Pulido Rull, *Mapping Indigenous Land*, 54.

[26] Pulido Rull, *Mapping Indigenous Land*, 53-54.

[27] Mundy, *The Mapping of New Spain*, 88. Examples of this tradition can be seen in the *Florentine Codex*, a post-contact codex compiled by Bernardino de Sahagún with work from Indigenous artists. Sahagún's completed his project around the same time that San Agustín created his *Pintura de Culhuacán*.

[28] Julian Pitt-Rivers, "*Ladino* or Mestizo?," *Bulletin of the Society for Latin American Studies*, no. 10 (1968): 27.

[29] Covarrubias, *Tesoro de la Lengua Castellana o Española*, 747.

[30] Pitt-Rivers, "*Ladino* or Mestizo?," 28; Fernando Lopez de la Torre, "El Trabajo Misional," 107-109.

his role as a *ladino* man interested in education and effective communication impacted the content's presentation.

One of the first artistic decisions San Agustín made when creating the *Pintura de Culhuacán* was the choice of paper. In the late sixteenth century, three main options existed: European rag paper, made from linen or wood pulp, amate paper, made from fig-bark, or parchment, made from animal hide.[31] Evidenced by the presence of European watermarks on many pinturas, the majority of the Relaciones Geográficas artists elected to use pre-sized European paper (Table 1). The town of Iztapalapán that bordered Culhuacán drafted their pintura on watermarked European paper the same size as the accompanying *Relación de Iztapalapán*. This suggests that the *corregidores* or local scribes completing the written sections of the Relaciones Geográficas provided paper to Iztapalapán artists for their work.[32] San Agustín, however, completed the *Pintura de Culhuacán* on amate paper possibly made at the paper mill he depicted in the pintura.[33] The selection of amate paper reflected San Agustín's relationship to Culhuacán by connecting him to the Indigenous Culhuacán community, allowing him to exhibit agency over his work, and highlighting the unique features of the city.

Long before the arrival of the Spanish, Indigenous *tlacuilos,* or painter-scribes, crafted codices using amate paper.[34] This product held value both as a tool for preserving the written word and as a ritual object.[35] The *Codex Mendoza*, an Aztec codex created around 1541, notes that during the

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[31] Mundy, *The Mapping of New Spain*, 65. Marcella Montellano Arteaga, "Culhuacán: El Primer Molino de Papel en América," *Boletín de Monumentos Históricos*, no. 16 (May-August 2009): 90.

[32] Mundy, *The Mapping of New Spain*, 65.

[33] René Acuña, *Relaciones Geográficas del Siglo XVI*, Vol. 5 (UNAM, Instituto de Investigaciones Antropológicas, 1986): 29; Montellano Arteaga, "Culhuacán: El Primer Molino de Papel," 76-77. Mundy, *The Mapping of New Spain*, 65.

[34] Margarita de Orellana *et al.*, "Pre-Hispanic Codices," *Artes de México*, no. 109 (March 2013): 76.

[35] Franke J. Neumann, "Paper: A Sacred Material in Aztec Ritual." *History of Religions* 13, no. 2 (1973): 149–59.

height of his reign, the ruler of Tenochtitlán demanded a yearly tribute of 480,000 sheets of this paper.[36] Hence, amate became immensely important to the Indigenous people of Mexico, who stored their histories and worldviews on these durable sheets. San Agustín took an interest in amate paper for both its cultural significance and its durability, as it allowed him to fold the *Pintura de Culhuacán* and influence its reception in Spain.

Unlike watermarked European rag paper, which came in standard sizes, often 42 centimeters (cm.) by 31 cm., amate paper varied in size. The *Pintura de Culhuacán* is made of four bound sheets of amate, creating a large surface area. Seams and remnants of a binder are still visible on the front and reverse of the piece.[37] With these additions, the *Pintura de Culhuacán* measures 70 cm. by 54 cm., nearly six times the size of the folded *Relación de Culhuacán* folios. In comparison to these accompanying documents, San Agustín's pintura occupied a great amount of space. The decision to produce a work of significant size, and likely cost, suggests that the artist took pride in the area he was representing and found it deserving of space and attention. Works on standardized European rag paper could be easily folded into the written pages of relaciones completed on the same paper and be easily overlooked as an accessory of the accompanying relación rather than a distinct work. In choosing to create a pintura much larger than the European paper would allow, San Agustín called attention to his work and, by extension, to himself.

Historians commonly cite the paper mill San Agustín marked on the *Pintura de Culhuacán* as the first of its kind constructed in North America.[38] Construction likely began

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[36] Neumann, "Paper: A Sacred Material in Aztec Ritual," 149.

[37] I viewed the *Pintura de Culhuacán* and completed this research at the University of Texas Austin's LLILAS Benson Latin American Collection Library in December 2023.

[38] Philip P. Arnold, "Paper Ties to Land: Indigenous and Colonial Material Orientations to the Valley of Mexico," *History of Religions* 35, no. 1 (1995): 54; René Teijgeler, "The Politics of Amate and

soon after the Crown granted a deed for the mill in 1575, with the mill fully operational by the time San Agustín drew it in 1580. Part of this decree permitted the men to "manufacture paper in New Spain, utilizing material they had found."[39] Mundy suggests that fig-tree bark, used to make amate paper, was one such material. If so, it would be likely that the paper San Agustín used for the *Pintura de Culhuacán* came from this mill, located directly across from the church of San Juan Evangelista.[40] The scribes of the written *Relación of Culhuacán* highlighted the presence of the paper mill in question twenty, writing, "hay en el dicho pueblo un molino y batán en que se hace papel" ["there is in this town a mill and a fueling mill where paper is made"].

If San Agustín used amate paper produced in the Culhuacán paper mill, a structure that became the city's claim-to-fame, one would assume that the mill would feature prominently on the *Pintura de Culhuacán*. The artist, however, sketched the rough shape of the mill onto the map as a nonspecific building. By comparing the handwriting from San Agustín's signature on the reverse of the map to the glossing completed on the front, we can be sure that San Agustín glossed his own image.[41] The ink used to gloss the pintura was the same as that used to add the pond and paper mill, suggesting that these landmarks were included at the

Paper in Mexico," *IPH Congress Book* (2006): 11; Arteaga, "Culhuacán: El Primer Molino de Papel," 74.

[39] Arnold, "Paper Ties to Land," 54.

[40] Arteaga, "Culhuacán: El Primer Molino de Papel," 81.

[41] In this context, glossing is the act of providing an interpretation or label, typically written, to clarify the purpose or identity of a landmark. In the colonial New World, it was common for Spaniards to gloss works by Indigenous artists or scribes. In doing so, the Spanish often mislabeled or poorly described Indigenous ideas, causing the act of glossing to become synonymous with cultural chauvinism. San Agustín's self-glossing can therefore be seen as a demonstration of the artist's self-confidence and the importance of Indigenous self-governance in the region.

same time as the glosses.[42] Adding the paper mill to the map during the final glossing stage implies that San Agustín excluded the mill from his final planned composition and instead included it as a late addition. When compared to the comunidad building, placed importantly in the center of the composition, and the church of San Juan Evangelista, meticulously edited before the application of paint, the paper mill appears to have been an afterthought. This presentation calls into question the importance of the mill for San Agustín, implying that the building may not have been as important to the Indigenous artist as it was for the Spanish who emphasized its presence in the written *Relación de Culhuacán*.

While Mundy suggests that the Indigenous artists who produced pinturas for the local Spanish governments completed their work entirely apart from the written texts, San Agustín's late addition of the paper mill reflects a desire to visualize what the Spanish scribes communicated in writing.[43] The gloss he added to his sketch of the paper mill, "Este es el molino de papel," is not a typical, label-like gloss such as those on the scattered parishes that state only their name.[44] The addition of "Este es," also found on the gloss for the pond and the church of San Juan Evangelista, reads as though San Agustín was checking his pintura against the *Relación de Culhuacán*, adding missing details, and emphasizing the locations of the structures highlighted by the Spanish scribes. If San Agustín had not read the completed *Relación*

[42] I viewed the *Pintura de Culhuacán* in December of 2023 University of Texas Austin's LLILAS Benson Latin American Collection Library.

[43] Mundy, *The Mapping of New Spain*, 65.

[44] Throughout this article, the term long-form gloss is used to refer to glosses of complete sentences. In linguistics, these glosses may be considered suppletive glosses. San Agustín's use of long-form glossing is deeply connected to his identity as an *hombre ladino*. San Agustín's training in the Augustinian church prepared him to be an educator to the Indigenous population. The long-form glossing on his pintura reflects this proclivity for education and role as an intermediary between the Indigenous and Spanish.

de Culhuacán's references to the mill and pond as he glossed his map, it is likely that these structures would not have made it onto the final pintura.

The primary purpose of Culhuacán's paper mill was to support the colonization mission by providing paper for printing works teaching the Catholic doctrine.[45] For Indigenous natives living in Culhuacán, mass production of the paper they associated with pre-contact codices and ritual practices threatened the sacred nature of the material. As a *natural* of Culhuacán, San Agustín likely viewed the paper mill as unrepresentative of his Indigenous community, opting to include it only because it was mentioned in the *Relación de Culhuacán*. This suggests that he took pride in the cultural importance of amate paper but had no desire to claim the mass production of the paper or the colonizing system it perpetuated.

In 1580, Lake Texcoco still surrounded Tenochtitlán, the capital of the Mexica Empire.[46] Culhuacán sat southwest of Tenochtitlán at the tip of a peninsula bordered by Lake Texcoco and Lake Xochimilco. The prevalence of water in the region, combined with the rough terrain that surrounded Culhuacán, necessitated the construction of canal systems throughout the city. Before the arrival of the Spanish, these canals, one of which still crosses the center of modern-day Culhuacán, functioned as man-made rivers, transporting 3,000 to 4,000 canoes of goods to and from the capital every day.[47] The ability to manipulate water in the region was crucial to Culhuacán's development and was a source of pride for the city.

The specificity with which San Agustín presented the two main canals bisecting the center of the city in his *Pintura de*

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[45] The mill was also likely built by Indigenous laborers with materials pulled from their destroyed, sacred buildings.

[46] Cline, *Colonial Culhuacán*, 2; Rafael López Guzmán, *Territorio, Poblamiento y Arquitectura. México en las Relaciones Geográficas de Felipe II* (Universidad de Granada Editorial, 2007), 271; Cline, *Colonial Culhuacán*, 10.

[47] Francisco del Paso y Troncoso, "Relaciones Geográficas de México," *Editorial Cosmos* (1979): 194.

Culhuacán demonstrates the importance of these waterways to both the artist and the community. A visual analysis of the pintura reveals various reworkings of the canal's path to achieve maximum accuracy. Below the comunidad building is a paper patch that extends in a backwards "L" shape along the surface. Although streets and parish steeples now cross over the patch, a bit of blue pigment can be seen exposed on the lefthand side. Extending from the left side of the patch is a light gray line that follows the approximate shape of the finished canal visible on the completed pintura. This line is the underdrawing of the canal that San Agustín edited for the finished product.

In the process of reworking the canal, San Agustín shifted the rightmost vertical street to make space for the waterway to pass next to the comunidad building. In doing so, the artist threw off the symmetrical gridded street system, suggesting that the accuracy of the canal bend was more important than the aesthetic presentation of the street grid. This grid system was a Spanish convention implemented in Culhuacán likely with the arrival of the Augustinians. Completed in 1573, the *Laws of the Indies*, a collection of 148 ordinances outlining the proper development of colonial towns, detailed the construction of city centers founded on gridded street systems.[48] For the Spanish, gridded city centers represented the efficacy of the colonization and Europeanization effort. San Agustín's choice of canal accuracy over street symmetry demonstrated a clash of cultural values that prioritized Indigenous authority.

The alteration of the canal's path also ensured that the water passed by the comunidad building. While likely the accurate representation of the landscape, this choice also reflected the significance of the Indigenous community center onto the canal. As the focal point of the composition, the comunidad building draws viewer attention. The building takes the form of the Indigenous palaces represented in the *Florentine Codex*, a work completed between 1545 and 1590

[48] *Ordenanzas del Descubrimiento, Nuevo Población y Pacificación de las Indias* (The Laws of the Indies), Bosque de Segovia, 1573.

by the Spanish Franciscan Fray Bernardino de Sahagún, drawing a connection between pre- and post-contact Culhuacán.[49] Even without understanding the significance of the comunidad building, its position and gloss define it as the center of Indigenous life within the city. Unlike the haphazard presentation of the paper mill, the careful depiction of the canal suggests that the waterway functioned as a symbol of Indigenous Culhuacán pride.

The social, political, and historical importance of Culhuacán's relationship to Tenochtitlán may also have influenced San Agustín's accurate presentation of the city's canal system. The name Culhuacán means "the place of those who have grandfathers," implying an interest in historical lineage and cultural heritage.[50] From the tenth to twelfth centuries, the Toltecs were the most powerful group in central Mexico. The control this group held made aligning oneself with the Toltec lineage a culturally and politically valuable endeavor. Although historians debate whether Culhuacán formed a triple alliance with Tollan, the Toltecs' home city, or became home to the Toltecs after the fall of Tollan, Culhuacán's connection to the influential Toltec heritage is undeniable.[51] After the collapse of Tollan some 350 years before the arrival of the Spanish, Culhuacán maintained its importance as home to Toltec culture.[52] When the Mexica culture overtook Culhuacán in 1319, the invading group respected Culhuacán's Toltec descendancy, deciding to adopt the similar name "Culhua" to connect themselves

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[49] The *Florentine Codex* is an interesting case study to pull examples from because Fray Bernardino de Sahagún created his work based off interviews with Indigenous leaders and elders. Although Sahagún was a Spanish man, his role as an intermediary between Spanish and Indigenous can be viewed as similar to San Agustín's. This article will use the *Florentine Codex* as a reference for the Indigenous artistic tradition and history it contains.

[50] Nigel Davies, *The Toltec Heritage from the Fall of Tula to the Rise of Tenochtitlán* (University of Oklahoma Press, 1980), 23.

[51] Davies, *The Toltec Heritage*, 26. Tollan is also referred to as Tula.

[52] Davies, *The Toltec Heritage*, 28; Nigel Davies, *The Toltecs Until the Fall of Tula* (University of Oklahoma Press, 1977), 25, 55.

also to the Toltec heritage.[53] The Mexica left Culhuacán in 1343 to found Tenochtitlán which, by the arrival of the Spanish in 1519, had become the most powerful civilization in central Mexico.[54]

In addition to drawing a physical connection between Culhuacán and Tenochtitlán, the city's canal system established a social and political relationship between the two towns. Although Culhuacán's Toltec heritage once made it a powerful player within central Mexico, by the time the Spanish arrived in 1519, Tenochtitlán had surpassed Culhuacán in political importance.[55] Hence, it was crucial for Culhuacán to attach itself to the new political leaders, an effort the politically-minded San Agustín understood. The canal system the Indigenous citizens of Culhuacán constructed was one way to build this connection between themselves and the inhabitants of Tenochtitlán, making the waterways symbols of town pride and regional power.

The meticulous reworking and interest in centralizing the canal system on the *Pintura de Culhuacán* demonstrated San Agustín's dedication to communicating Culhuacán's relationship to Tenochtitlán and, by extension, relationship to the centralized power of the Mexica. The artist suggested that, with such a backing in Indigenous power, Culhuacán demanded attention and respect. The citizens of Culhuacán took pride in their canal systems and their connection to the former capital city. In this way, these waterways depicted Culhuacán's autonomy as an Indigenous town. With these canals, Culhuacán defined itself socially, politically, and historically. It was San Agustín's identity as an Indigenous member of the Culhuacán community which informed the stylistic choices that reflected Indigenous values.

The footprint-laden roadways, featured on various Indigenous-made Relaciones Geográficas pinturas of central Mexico, have a deep, pre-contact history within Indigenous

[53] Davies, *The Toltec Heritage*, 39.
[54] Davies, *The Toltec Heritage*, 31.
[55] Davies, *The Toltec Heritage*, 31.

drawing and mapmaking tradition.[56] Page 70 of Fray Bernardino de Sahagun's eighth book of the *Florentine Codex* depicts a scene of an Indigenous noble embarking on one of many footprint-covered paths that intersect at a large building. Scenes like this one employed footprint-covered paths to represent Indigenous migration, emphasizing the Indigenous presence across the landscape. By 1580, the addition of footprints to streets was part of the mapmaking tradition likely passed down between Indigenous artists within the Augustinian education curriculum.[57]

The Indigenous presence visible on the *Pintura de Culhuacán* is best described using Richard Kagan's definition of *urbs* and *civitas*.[58] Although the roadways contribute geographic information typically associated with the understanding of *urbs*, the addition of footprints to the streets adds *civitas* elements to the composition, underscoring the Indigenous community's existence in the space. San Agustín highlighted this tangible Indigenous presence with the addition of footprint-covered streets to the *Pintura de Culhuacán*. Interestingly, the streets were one of the only clues the artist gave to human presence within Culhuacán. San Agustín elected not to depict houses like the Indigenous artist of the *Pintura de Misantla*.

San Agustín's exclusion of homes from the *Pintura de Culhuacán* reflected his attempts to remain loyal to the written prompt of the Relaciones Geográficas questionnaire, which did not request houses to be included on the pintura. This fidelity to the questionnaire makes the presence of footprint-laden streets more important. Functioning as an Indigenous settlement with only light Spanish oversight, human presence in Culhuacán was synonymous with Indigenous presence. Many of San Agustín's streets, like those of the *Florentine Codex*, extend off the pintura's edge, demonstrating

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[56] Pulido Rull, *Mapping Indigenous Land*, 53. The *Pintura de Atlatlauhca* is one such example.

[57] Pulido Rull, *Mapping Indigenous Land*, 53.

[58] Richard L. Kagan, *Urban Images of the Hispanic World 1493-1793* (Yale University Press, 2000), 34.

the interconnectedness of the Indigenous population of central Mexico. In combination with the canal system, the extension of the streets towards other cities like Iztapalapán bolster Indigenous claim to the land by suggesting the existence of an Indigenous community network. As an *hombre natural* of Culhuacán, San Agustín took pride in the little Spanish oversight and Indigenous control over their land. His decision to include the footprint-covered streets on the *Pintura de Culhuacán* emphasized not only Culhuacán's connection to Indigenous tradition but also the community's humanity.

Instead of orienting the *Pintura de Culhuacán* to the North, San Agustín elected to orient the pintura towards the Cerro de la Estrella. Although east of Culhuacán, this hill, labeled "cero (cerro) de yztapalapa (itzapalapán)," dominates the top of the composition. In 1507, before the arrival of the Spanish, the Aztec celebrated the final New Fire ceremony atop the Cerro de la Estrella.[59] This ritual practice, celebrated every fifty-two years, marked the end of the Aztec calendrical cycle and ensured the restart of the next.[60] This ceremony was central to the lives of pre-contact Indigenous groups, especially within Central Mexico, and the remains of temple structures still lay atop the Cerro de la Estrella.[61] Seventy-three years after the completion of the final New Fire ceremony, the Indigenous inhabitants of Culhuacán continued to venerate the mountain upon which it was held. Orienting his *Pintura de Culhuacán* towards the Cerro de la Estrella may have been San Agustín's way of paying homage to the importance of the mountain within pre-contact Indigenous tradition.

As an elite *hombre natural* of Culhuacán, San Agustín had the unique opportunity to present his town's culture, history, and significance in the Spanish-commissioned *Pintura de*

[59] Winning, "The 'Binding of the Years'," 17.

[60] Helmke and Garcia, "Caves and New Fire Ceremonies," 56; Winning, "The 'Binding of the Years," 16.

[61] The Mexican government declared the ruins atop the Cerro de la Estrella a National Park in 1938.

Culhuacán. He made each decision, from the selection of amate paper to the underlining of his namesake parish, with the intention of honoring Culhuacán and imparting its importance on Spanish viewers. In representing his home, San Agustín also represented himself and, by extension, other inhabitants of Culhuacán. The artist demonstrated his pride and interest in the town's powerful history and vibrant Indigenous presence. His education in the Augustinian monastery and knowledge of Indigenous writing tradition, provided to him due to his identity as an elite *hombre natural* of the town, permitted San Agustín to compose his *Pintura de Culhuacán*, a work full of information relevant to life in sixteenth-century Culhuacán.

Unlike western conceptions of writing and artistic creation as two distinct practices, the Aztecs held one conception for writing, painting, and drawing. The Aztecs used one word for the individuals who practiced this art of scribe-painting: a *tlacuilo*.[62]

As part of the elite Indigenous community of Culhuacán, San Agustín understood the acts of painting and writing as interconnected. Extending this conception further, painting and writing were deeply intertwined with reading and the spoken word. It is for this reason that art historians often describe the Indigenous practice of "reading the painting." An analysis of the *Pintura de Culhuacán* demonstrates how San Agustín employed his position as a writer, painter, and orator to communicate his messages to his Spanish audience.

For San Agustín, the *Pintura de Culhuacán* served as a vehicle for disseminating knowledge about his city. The artistic choices San Agustín made to communicate this information were founded in his understanding of the harmony between writing, painting, and reading, originating from his identity as an Indigenous elite.

This article argued previously that the long-form glosses on the addition of the pond and paper mill, "este es el

[62] Boone, *Stories in Red and Black*, 27; Cynthia L. Stone, *In Place of Gods and Kings: Authorship and Identity in the Relación de Michoacán* (University of Oklahoma Press, 2004), 74.

estanque" and "este es el molino de papel," evidence San Agustín's interaction with the *Relación de Culhuacán* before his completion of the map. The long-form glosses also served to demonstrate the way San Agustín "read" his own pintura to the Spanish Crown. Of the structures on the *Pintura de Culhuacán*, the pond and paper mill, with their unspecific forms, were most in need of clarification via glossing. As opposed to using a simple gloss, "*estanque*" or "*molino de papel*," San Agustín wrote a sentence to aid the next viewer's interpretation. One can picture San Agustín bent over his amate paper pintura, cross-checking details with the *Relación de Culhuacán* and whispering to himself, "este es el *estanque*," as he wrote it across the page. The complete sentences communicate the synthesis of writing, reading, and visual art, allowing the Spanish to view the work and read the phrase as if San Agustín traveled with the document and presented it verbally to the king.

In the top right quadrant of the *Pintura de Culhuacán*, San Agustín presented six parishes with remarkably similar forms. He labeled each small church with the name of its patron saint, like "Santa Maria," "S Simon," or "San Sebastian." One parish in this quadrant, the building labeled "Sant Pedro," is the only church on the map that San Agustín underlined during the glossing process. The artist added a similar underline beneath the name of the town in the center of the composition. The underline can be viewed as a mark of emphasis made as the artist "re-read" his work before submitting it to the Spanish.

As with the long-form glosses, this underline permits the viewer to imagine San Agustín in his final moments editing the *Pintura de Culhuacán*. Having painted and glossed his pintura, San Agustín was finally able to employ the work to tell his story. One can picture San Agustín reading over his work, noting aloud the locations of the pond and paper mill, describing the church of San Juan Evangelista, and calling special attention to the Parish of Saint Pedro as he emphasized its importance with a quick underline.

Scholars have not uncovered textual evidence indicating the significance the Parish of Saint Pedro held within the life

of San Agustín nor culture of the Culhuacán community. However, it is possible that the artist, Pedro de San Agustín, felt a particular connection to this parish for being named after its patron saint. It is also possible that the emphasis placed on Saint Pedro did not represent the spiritual importance of the saint to the artist but served as a reminder to the Spanish of the Indigenous artist's name, his connection to Culhuacán, and his power within the current political and religious system.

The combination of glyphic representation and alphabetic writing in the center of the composition directly connected Indigenous and European writing. Above the comunidad building in the center of the pintura, San Agustín painted the hill-sign of Culhuacán. Hill-signs, part of Nahuatl tradition, represented towns or cities.[63] The glyph identified the pintura as a representation of Culhuacán. Adding the Spanish gloss, "Por este cerro se llama este pueblo Culhuacán" ["The town is called Culhuacán because of this mountain"], above the hill-sign prompted the Spanish to read the glyph as Indigenous *tlacuilo* would. Significantly, San Agustín included both the hill-sign and the gloss in the center of the composition, finding value in the Indigenous history of the glyph while placing importance on the Spaniards' understanding of it. Unlike the long-form glosses and underline, which clarified the identity of buildings or highlighted their importance, the combination of glyph and gloss in the center of the composition tasked the Spanish with reading and interpreting an Indigenous symbol.

In working to create a pintura that could be read as it was viewed, San Agustín displayed his connection to the Indigenous traditions he learned as a *natural* of Culhuacán. The artist valued a pintura's ability to communicate information in a variety of forms, possibly viewing his role as that of a *tlacuilo*. While San Agustín's attempts to make his *Pintura de Culhuacán* interpretable, or readable, to the Spanish proved unsuccessful in the sixteenth century, today, the

[63] Mundy, *The Mapping of New Spain*, 145-9. The Nahuatl word *cola* means "something curved."

decisions made while creating the work share invaluable insights into the goals, interests, and culture of the Indigenous inhabitants of Culhuacán.

Signed: Pedro de San Agustín as a Political Figure in Culhuacán

As they worked to restructure Indigenous cities in the New World, the Spanish implemented governmental systems modeled after their own. At the municipal level, elite Indigenous men held most of the positions on the *cabildo*, or Spanish-style council.[64] In Culhuacán especially, a town with little physical Spanish presence in the 1580s, Indigenous elites ran the Spanish-style government.[65] On June 29th, 1585, five years after the completion of the *Pintura de Culhuacán*, Pedro de San Agustín signed his name in the *Testamentos de Culhuacán*, a book of wills from residents of Culhuacán between 1579 and 1599, as alcalde.[66] The position of alcalde, although commonly translated today as "mayor", functioned in a more judicial capacity in the sixteenth century.[67] Alcaldes served as important members of the cabildo and often went on to hold higher offices within the colonial government.[68] Although alcalde terms lasted only one year, Indigenous elites often stayed in government and rotated positions.[69] Given the prestigious nature of the

[64] William F. Connell, *After Moctezuma: Indigenous Politics and Self-Government in Mexico City, 1524-1730* (University of Oklahoma Press, 2011), 3; Cline, *Colonial Culhuacán,* 39.

[65] Cline, *Colonial Culhuacán*, 7.

[66] Cline and Leon-Portilla, *The Testaments of Culhuacán*, 100.

[67] Schwaller, "Alcalde vs. Mayor," 395; Grivas, "Alcalde Rule," 15-16.

[68] Connell, *After Moctezuma*, 41.

[69] Rebecca Horn, *Postconquest Coyoacan: Nahua-Spanish Relations in Central Mexico, 1519-1650* (Stanford University Press, 1997): 57; Cline, *Colonial Culhuacán*, 39; Schwaller, "Alcalde vs. Mayor," 393-6. In municipalities with two alcaldes, one served as alcalde ordinario (municipal judge) and the other as alcalde de la Hermandad (rural judge). A second alcalde signed the entry in the Testamentos, Documento 61, above San Agustín, possibly

alcalde title, it is unlikely that it was San Agustín's first political position. The stylistic choices San Agustín made in his *Pintura de Culhuacán* five years earlier reflect the artist's interest in and knowledge of the politics of Culhuacán and his role within this system.

Documentation of San Agustín holding a political role within Culhuacán in or before 1580, when he created the *Pintura de Culhuacán*, has not yet been uncovered.[70] For an educated, elite, Indigenous man like San Agustín, however, a position in politics would be a possible next-step after his monastic education. If he did not hold a governmental role before or during the creation of the *Pintura de Culhuacán*, San Agustín's selection as artist may be seen as one of the first moves of his political career. The time and care San Agustín took when completing his pintura, evidenced by the amount of underdrawing and editing discussed later, suggests that the artist felt compelled to produce a high-quality work that represented both the prestige of Culhuacán and his value as a representative of the town.

The access San Agustín had to the *Relación de Culhuacán* after the completion of his pintura, outlined in the first section of this paper, suggests a relationship to the political system that other Indigenous artists working on the Relaciones likely did not enjoy. Both material and formal aspects of the pintura, like its folding and the placement of San Agustín's signature, demonstrate that the Indigenous artist readied the documents for departure. The delegation of such a role indicates that the Spanish officials trusted San Agustín. The respect shown to the artist may have contributed to his role within the Culhuacán political system just a few years later.

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indicating that, in 1585, the artist held the title of alcalde de la Hermandad; Cline and Leon-Portilla, *The Testaments of Culhuacán*, 127. The man exposed in Documento 61 as hiding wills, Miguel Jacobo, served as notary in 1602, 1604, and 1605 but also held the position of alcalde in 1603.

[70] Cline and Leon-Portilla, *The Testaments of Culhuacán*, 70. The *Testamentos* list Francisco Flores as the alcalde serving in 1580 and Lorenzo de San Francisco and Juan Téllez serving in 1581.

The political system San Agustín highlighted in the *Pintura de Culhuacán* was based in Indigenous rule. The comunidad building takes a form common for political buildings in pre-contact codices.[71] San Agustín signature on the pintura's reverse proudly announced his identity as an Indigenous *natural* of Culhuacán to the Spaniards receiving the pintura. Overall, San Agustín employs his *Pintura de Culhuacán* to legitimate Indigenous political rule and, by extension, his qualification for political power.

Before deciding on the current composition for his *Pintura de Culhuacán*, San Agustín began drafting his work on what is now the pintura's reverse. In addition to the paint pigment and signature ink visible on the reverse, there is a sketch visible in the center of the paper made with the same light pigment used for underdrawings on the front.[72] This sketch presents a building in the style of the parishes on the front above a square body of water. San Agustín contained these two landmarks within a rectangular box. Above the parish, the artist added the place-glyph of Culhuacán. Based on the spatial relationship between the parish and the rectangular body of water, it is likely that these two landmarks are the Church of San Juan Evangelista and the pond near it used to fuel the paper mill.[73] On the front of the map, the artist oriented the church and the body of water in the same way, with the rectangular pond beneath the church (Fig. 2). The main differences between the two presentations of the same space are the location of the landmarks in comparison to the rest of the composition and the detail provided to each landmark. Instead of the Church and pond, the central landmark of the final (front) composition is the comunidad building, also situated beneath the place-glyph of Culhuacán. By replacing the Church with the comunidad

[71] Barbara Mundy, *The Mapping of New Spain,* 88.

[72] This signature is completed in the same ink San Agustín used to gloss the front of the *Pintura de Culhuacán*.

[73] Montellano Arteaga, "Culhuacán: El Primer Molino de Papel en América," 81.

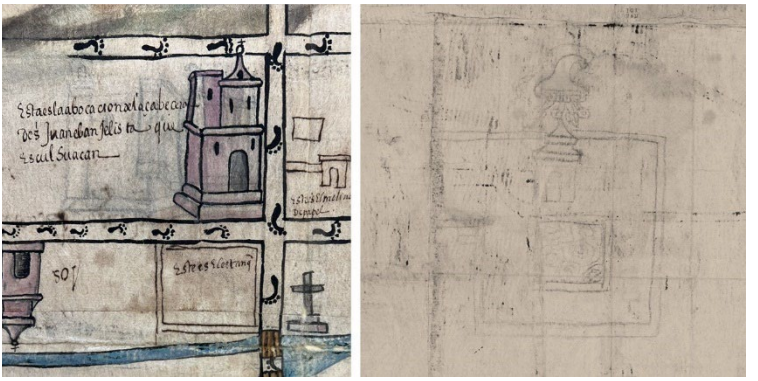

Figure 2: *Comparison between the original composition on the reverse of the* Pintura de Culhuacán *and the final composition visible on the front. Pedro de San Agustín,* Pintura de Culhuacán*;* Relación de Culhuacán*, 1580, LLILAS Benson Latin American Studies and Collections. (Courtesy of the Collections at the University of Texas at Austin Libraries).*

building in the composition's center, San Agustín presented Culhuacán as a city thriving under Indigenous political rule.

The Church of San Juan Evangelista was likely the site of San Agustín's religious and artistic education.[74] As an artist representing his conception of the world, he placed the center of his religious and educational life at the center of the composition. San Agustín underscored the importance of this landmark by situating it beneath the place-glyph of Culhuacán, claiming this area as the heart of the Culhuacán community.

The front, final composition tells a different story about San Agustín and the Culhuacán community. Instead of the Church of San Juan Evangelista, San Agustín placed the comunidad building beneath the place-glyph in the center of the composition. In effect, the artist claimed this building as the landmark most representative of his identity and the community of Culhuacán. Although generic buildings, like the presentation of the paper mill, take similar forms, San Agustín took special care to present the comunidad building with circular details along the top. In the *Florentine Codex*,

[74] Mundy, *The Mapping of New Spain*, 82-83.

Bernardino de Sahagún presented royal palaces and administrative buildings in this same style. San Agustín used this form to represent the cabildo building, the governmental center where alcaldes and *regidores* gathered.[75] In replacing the Church of San Juan Evangelista with the governmental comunidad building, San Agustín visually and figuratively re-centered the Culhuacán community, and his own identity, around the town's politics.

While the centralization of the comunidad building supports the importance the artist and town placed on Spanish-style Indigenous rule, the centralization of the waterway around the political building suggests an additional interest in pre-contact Indigenous political power. As discussed in the previous section, the canal system on the *Pintura de Culhuacán* connects colonial Culhuacán to the Aztec center of Tenochtitlán while also drawing ties to the Toltecs.[76] In bringing ancient, pre-contact, and current Indigenous political power to the center of the composition, San Agustín intended to convey a strong, Indigenous political history.

Beginning in 1576, the second wave of an epidemic of *cocoliztli*, a Nahuatl word meaning "pest," ravaged the Indigenous populations of the New World.[77] This outbreak of hemorrhagic fever killed over two million people, about 45 percent of the total population.[78] Due to the town's continuous trade with Mexico City, which documented the

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[75] Guzmán, *Territorio, Poblamiento y Arquitectura*, 271, 241; Connell, *After Moctezuma*, 18. Cline, *Colonial Culhuacán*, 39. Here, Cline defines *regidores* as "town councilors." This position, like that of the alcalde, was held by Indigenous men; Mundy, *The Mapping of New Spain*, 88.

[76] Davies, *The Toltecs Until the Fall of Tula*, 25, 55; Davies, *The Toltec Heritage,* 28-30.

[77] Rodolfo Acuna-Soto *et al.*, "When Half of the Population Died: The Epidemic of Hemorrhagic Fevers of 1576 in Mexico," *FEMS Microbiology Letters* 240 (2004): 2.

[78] Rodolfo Acuna-Soto, Leticia Calderon Romero, and James H. Maguire, "Large Epidemics of Hemorrhagic Fevers in Mexico 1545-1815," *The American Journal of Tropical Medicine and Hygiene* (July 2000): 733.

first cases of cocoliztli in July of 1576, the epidemic reached Culhuacán in August of the same year.[79] Fray Juan Nuñez, the scribe of the written *Relación of Culhuacán*, noted the impact of cocoliztli in his response to question five regarding Indigenous populations.[80] As cocoliztli made its way through the Indigenous populations of Mexico, it left land behind with no family to tend to it. In a rush to claim this deserted land, the number of land grants, or *mercedes*, filed between 1576 and 1590 skyrocketed.[81] By law, each land grant required a map of the area being requested.[82] As a trained artist working with this period, San Agustín likely participated in the creation of these land grant maps. Although San Agustín has not been connected to the land grant maps in the Mexican National Archives (Archivo General de la Nación, Mexico), the accuracy and glossing of San Agustín's *Pintura de Culhuacán*, combined with his later political career, suggest a strong familiarity with land grant maps.

As the New World developed under Spanish rule, the Crown took an interest in managing the distribution of land. The Spanish established a system for the granting of land that made the process organized, documentable, and public.[83] This interest in supporting legal documentation with images and visuals originated in the pre-contact legal system.[84] As Sahagún's *Florentine Codex* presents, the Aztec legal system

[79] Acuna-Soto *et al.*, "When Half of the Population Died," 3.

[80] Nuñez writes, "En tiempos pasados después de conquistados eran muy muchos más y con enfermedades que han tenido y en especial de pestilencias que ellos llaman cocoliste se han muerto" "[In the past, after the conquest, there were many more [men], and with sicknesses they have had and, especially, plagues which they call cocoliste (cocoliztli), they have died.]"

[81] Rull, *Mapping Indigenous Land,* 36.

[82] Rull, *Mapping Indigenous Land*, 14; Mundy, *The Mapping of New Spain*, 183.

[83] Rull, *Mapping Indigenous Land*, 13.

[84] Rull, *Mapping Indigenous Land*, 45-49.

relied on paintings as documentation of both crimes and trials.[85]

The Spanish decision to maintain the pre-contact use of images within the court meant that all interested grantees, both Spanish and Indigenous, were required to produce a map. Often, the Spanish magistrates overseeing the process tasked trained Indigenous artists with the land grand maps' creation. San Agustín, with his monastic artistic education, would have been a likely candidate for such a commission.

A few miles east of Culhuacán lies the town of Iztapalapán. Martín Cano, the Indigenous artist who completed Iztapalapán's pintura for the Relaciones Geográficas in 1580, also created a land grant map of the city in 1589.[86] The similarities between Cano's and San Agustín's pinturas, although possibly explained in part by their geographic proximity, also serve to suggest that, like Cano, San Agustín participated in the creation of land grant maps. It could be this background in land grant map production that situated San Agustín in a position to be commissioned for the Relaciones Geográficas project and put him in contact with individuals influential in the development of his political career.

San Agustín's long-form written glosses are like the glosses Spanish *corregidores* used over land grant maps sent for final administrative approval. While few pinturas from the Relaciones Geográficas project contain the long-form glossing present on the *Pintura de Culhuacán*, the *Pintura de Iztapalapán* is one which does. Although not common in the Relaciones Geográficas pinturas, long-form glossing appears frequently on land grant maps.[87] San Agustín's long-form glossing suggests experience making land grant maps or, at a minimum, a familiarity with what glossed land grant maps looked like.

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[85] Rull, *Mapping Indigenous Land*, 45-49.

[86] Mundy, *The Mapping of New Spain*, 202-209. Rull, *Mapping Indigenous Land*, 60. I have also uncovered evidence that Martín Cano, or possibly his father, served as alcalde in Tenochtitlán.

[87] Rull, *Mapping Indigenous Land*, 31.

Throughout his *Pintura de Culhuacán*, San Agustín demonstrated a dedication to accuracy similar to those of land grant maps. At first glance, the parishes depicted across the *Pintura de Culhuacán* appear to be scattered haphazardly throughout the landscape. However, using various modern digital maps of Culhuacán and the surrounding communities, it is possible to determine San Agustín's accuracy (Fig. 3).

In comparing the *Pintura de Culhuacán* to the landmarks found in the modern city, it is revealed that San Agustín intended to highlight the barrios of the city in their rightful places. San Agustín's interest in representing each barrio's presence within the town mimicked the purpose of a land grant map. For the Indigenous grantees fighting the uphill battle to gain land rights, land grant maps required the greatest accuracy possible. San Agustín's ability to present a pintura in such a way suggests that this was not his first time producing a pintura for the Spanish who valued geographic accuracy.

Although presenting Indigenous claim to the region was not the instruction nor intention of the tenth question of the Relaciones Geográficas questionnaire, this was the purpose of land grant maps. The land grant system gave Indigenous individuals power over their lands. San Agustín's possible connection to the process of drafting land grant maps further contextualizes his position within the politics of Culhuacán and more deeply explains his interest in presenting the town's politics through the *Pintura de Culhuacán*.

Sealed: The *Pintura de Culhuacán* as an Envelope

A visual analysis of Pedro de San Agustín's *Pintura de Culhuacán* reveals its secondary function as an envelope for the written portion of the Relaciones Geográficas, proving the artist's interaction with the written questionnaire response after the completion of his pintura. There are folding creases, two horizontal and three vertical, visible across the pintura. Although many pinturas from the Joaquín García Icazbalceta (JGI) collection at The University of Texas at Austin (UT Austin) are folded (Table 1), the folding

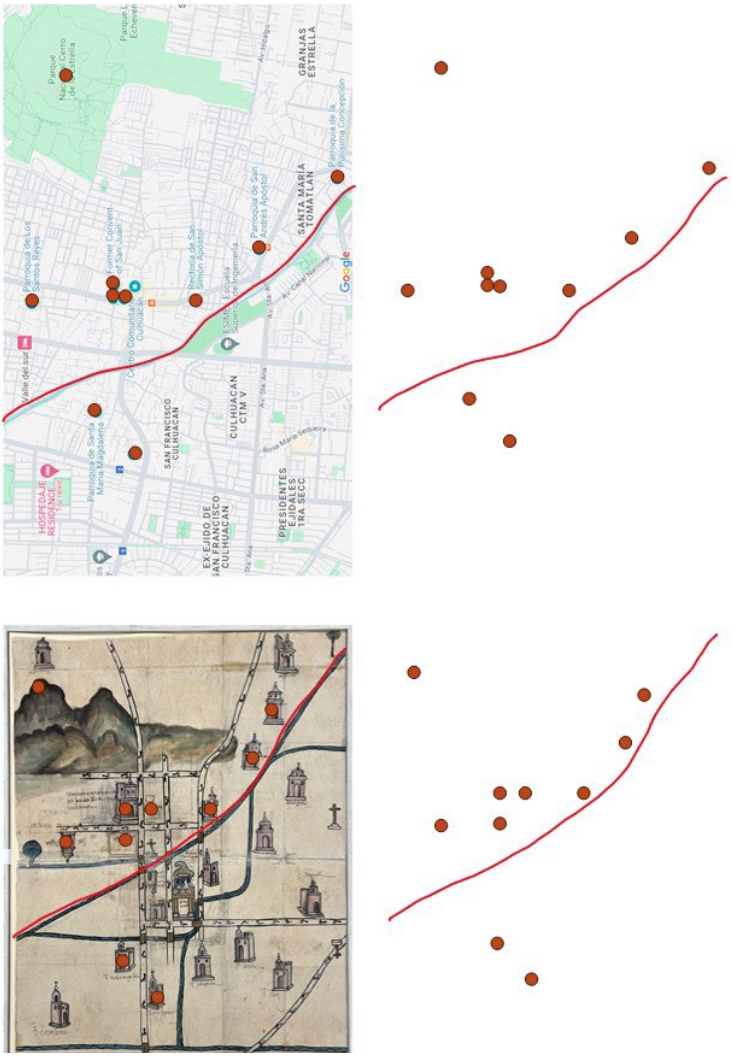

Figure 3: *Comparison of various landmarks from the* Pintura de Culhuacán *to the modern positions of these landmarks on* Google Maps *(Map data ©2025). Pedro de San Agustín, Pintura de Culhuacán, 1580, LLILAS Benson Latin American Studies and Collections; Google Maps, "Culhuacan Map Grouping," https://maps.app.goo.gl/4ibkjSf9J7GZAoZd8. (Courtesy of the Collections at the University of Texas at Austin Libraries).*

of the *Pintura de Culhuacán* is unique in its asymmetry. Rather than fold his pintura in fourths or eighths, San Agustín folded his 70 cm. by 54 cm. work down to 32 cm. by 22 cm. This new size perfectly fits the 31 cm. by 21 cm. written components of the Relaciones Geográficas completed by the Spanish within. To complete the process of folding his pintura around the *Relación de Culhuacán*, San Agustín folded down a 3 cm. strip from the top of his work. In doing so, the artist sealed the written relación within his pintura. It was in this state, with the written piece of the project tucked inside the folded pintura, that Culhuacán's Relaciones Geográficas project made the journey to Philip.

While working with the pintura at UT Austin, the following fold order became evident. Based on water staining, signature placement, pigment transfer, and the direction of the bends in the paper, it is clear that San Agustín folded the *Pintura de Culhuacán* as follows (Fig. 4):

1. Pintura folded in half horizontally (bottom to top)
2. Right (smaller, 10 cm.) side of pintura folded vertically to the front
3. Left (larger, 22 cm.) side of pintura folded vertically to the front
4. Bottom (3 cm.) section of pintura folded horizontally forwards

This folding procedure produces a 32 cm. by 22 cm. envelope perfect for housing the 31 cm. by 21 cm. *Relación de Culhuacán* inside. This fold order presented San Agustín's signature on the top exterior of the formed envelope.

Water stains and discoloration present across the surface of the *Pintura de Culhuacán* and the accompanying *Relación de Culhuacán* help determine the process San Agustín took when folding the pintura. Staining on the *Pintura de Culhuacán* is mainly isolated to the horizontal creases located at the bottom of the folded pintura. When folded, these stains align, mirroring each other both across the crease and between folded layers. As seen on the parish of San Lorenzo, the water stains lighten and discolor the pigment and glossing ink on the page. This suggests that the pintura came into

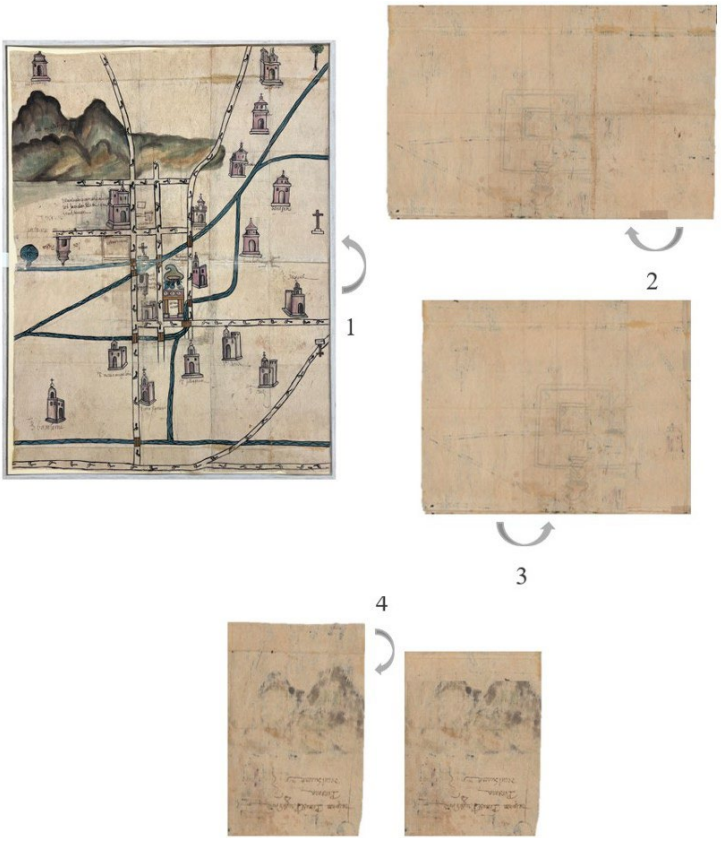

Figure 4: *Folding process of Pedro de San Agustín,* Pintura de Culhuacán*, 1580, LLILAS Benson Latin American Studies and Collections. (Courtesy of the Collections at the University of Texas at Austin Libraries).*

contact with water after its completion and subsequent folding, possibly during its passage back to Spain. There are additional water stains along the leftmost vertical crease that extend from the Church of San Juan Evangelista to the parish of Santa Maria Magdalena. The reverse image shows the extent of the water staining to this area. Again, the mirroring stains along both the horizontal and vertical folds show that the pintura was folded as described above when it encountered the water.

In addition to the *Pintura de Culhuacán*, the written questionnaire documents demonstrate evidence of water

staining. The alignment of the discolorations on the two project components shows that, when they encountered water, the written relación was encased within the pintura. The second, and final, folio page of the *Relación de Culhuacán* features a prominent water stain across the top. This yellowed section aligns with the discoloration on the folded crease of the pintura. A similar phenomenon occurs on the front folio page, where the yellowing of the top right corner of the *Relación de Culhuacán* matches the water staining of the pintura's folded corner. Both pages of the written questionnaire show discoloration from the larger water stains along the vertical folds. In two locations, the crease of the folio required patching, likely due to the extent of the water damage. In addition to illustrating the placement of the written questionnaire within the folded pintura, the water staining demonstrates the specific location within the envelope that San Agustín placed the *Relación de Culhuacán*: the central section, between sections five and eight, where the stains appear darkest and widest (Fig. 5). The alignment of the staining along the creases of the pintura and edges of the *Relación de Culhuacán* is visual testimony to the use of San Agustín's pintura as an envelope for the written questionnaire.

In addition to tracking the relationship between water staining on the *Pintura de Culhuacán* and its accompanying relación, the transfer of pigment and ink across the creases and onto the written questionnaire further evidence the pintura's function as an envelope. Along the central horizontal fold of the pintura runs a branch of Culhuacán's canal system. At first glance, this section appears to be the only one without the dark, black waving lines that denote the canals as waterways. A close inspection of the branch reveals faint traces of these waving lines still present across the surface. However, the rest of the pigment is missing. This section of the canal runs nearly directly along the main fold, which put a significant amount of strain on this area. Any friction caused by the handling of the folded pintura could have caused the black pigment to rub off. Some of this pigment transferred across the fold and can be seen reflected

Figure 5: *Alignment of the water stains on Pedro de San Agustín,* Pintura de Culhuacán*, 1580, and Pedro de San Agustín,* Relación de Culhuacán*, 1580, LLILAS Benson Latin American Studies and Collections. (Courtesy of the Collections at the University of Texas at Austin Libraries).*

on the other half of the pintura. Instead of serving as a barrier between the leftmost sections, the *Relación de Culhuacán* separated the two halves of the central section, sections five and eight, permitting the transfer of the canal's pigment across the fold.

There is a hole in the pintura along Culhuacán's main square. This loss is likely due to the friction and pressure placed on this region which, once folded, became a corner of the envelope. The corner to the right of this section, along

the center fold, also endured damage that has since been patched. Focusing on the leftmost corner, where two branches of Culhuacán's canal system meet, there is a similar loss of black pigment to that described above. The stress placed on this corner also caused a loss of blue pigment. Unlike the canal extension, there is no transfer of pigment present across the crease on the other half of the pintura. Instead, this lost blue pigment can be found on the front page of the *Relación de Culhuacán* that once separated the two pintura halves. This small section of blue aligns with the missing pigment from San Agustín's pintura once his work is folded over the *Relación de Culhuacán*.

While various art historians have discussed the presence of San Agustín's signature on the reverse of the pintura, none have focused on its unique placement and the cause of this decision. The traces of San Agustín's signature bled through to the front of his pintura and are visible to the left of the Church of San Juan Evangelista and the parish of Los Reyes. The signature placement on the reverse of section four, as opposed to the center or bottom edge, is curious. Once folded, however, the signature's location becomes clear: San Agustín signed his name across the top of the folded envelope.

Together, the water staining and pigment transfer demonstrate that San Agustín's pintura once encased the Spaniard's written questionnaire, likely for passage back to Spain. The visual markers show that the front page of the *Relación de Culhuacán* made contact with section eight of the pintura while the reverse of the final page made contact with section five.

The location of San Agustín's signature at the top of the envelope proves that he signed his name after completing the folding process. After completing the glossing of his pintura, using the *Relación de Culhuacán* to add the pond and paper mill, San Agustín placed the relación on top of his pintura, folded his work around the written questionnaire, and signed his name with the same ink on the outside of the newly formed envelope. This process reflects San Agustín's agency and

control over the completion of the project and its presentation in Spain.

The JGI collection at UT Austin is home to thirty-seven pinturas from the Relaciones Geográficas project. Examination of three of these works, the *Pintura de Culhuacán*, *Pintura de Iztapalapán*, and *Pintura de Atengo y Misquiahuala* in person in December of 2023 sparked an investigation into the folding of the other thirty-four pinturas. Online scans of the additional thirty-four pinturas in the JGI Collection helped determine if these works exhibited folding practices like that of San Agustín's *Pintura de Culhuacán*. The thirty-seven pinturas can be separated into four distinct categories:

1. Folios – Pinturas completed on European folio paper or paper approximately the size of European folio paper (31 cm. by 22 cm. or 31 cm. by 44 cm.)
2. Relación Does Not Fit – Pinturas that display evidence of folding yet fold to a size that could not fit the relación
3. Relación Fits; No Seal – Pinturas that display evidence of folding to a size that would fit a relación yet do not display evidence of a sealing fold

a. Bound Folios – Pinturas that fall into the category of "Relación Fits; No Seal" whose size indicates that they may be made of multiple sheets of bound European folio paper

4. Relación Fits; Sealed – Pinturas that display evidence of folding to a size that would fit a relación and display evidence of a sealing fold

A complete list of these categorizations can be found in Table 1 at the end of this article. After categorizing all thirty-seven pinturas in the JGI collection, the final tallies for each subsection are as follows:

1. Folios – 24
2. Relación Does Not Fit – 6
3. Relación Fits; No Seal – 2

a. Bound Folios – 3
4. Relación Fits; Sealed – 2

These tallies demonstrate the relative rarity of the *Pintura de Culhuacán's* function as an envelope within the JGI collection of pinturas. As listed in Table 1, the only two pinturas that fall into the "Relación Fits; Sealed" category are San Agustín's *Pintura de Culhuacán* and an unknown Indigenous artist's *Pintura de Cempoala*. Comparing San Agustín's work to others within the JGI collection from across Mexico and Guatemala reveals the unique nature of his work. San Agustín formed his *Pintura de Culhuacán*, a visual reflection of his town and himself, around the questionnaire and, in signing his name on the outside, took agency over the project. The level of power and responsibility San Agustín displayed when making these decisions and its relationship to his identity as a *natural* and politician of Culhuacán will be the discussion of the final section.

Delivered: The Reception of Pedro de San Agustín's Pintura de Culhuacán

After being folded and signed, San Agustín's *Pintura de Culhuacán* made the journey across the Atlantic. Lopez de Velasco, the Spanish *cosmógrafo-cronista mayor* in charge of the Relaciones Geográficas project, received the pinturas and questionnaire responses from the Council of the Indies in November of 1583.[88] The social and political climate that greeted the responses upon their arrival in Spain was tense. Philip was still in the midst of the Eighty Years' War and desperately searching for a sense of control over his colonies. What Philip received from Velasco's project, however, were not the ordered responses he expected. Instead, the documents Velasco signed for in 1583 were much more challenging for the Spanish to interpret. Although San Agustín prepared his *Pintura de Culhuacán* for its reception in Spain, the Spaniards' inability to interpret his work resulted

[88] Cline, "The Relaciones Geográficas," 354.

in a division between expectation and reality that prevented the artist's message from getting across.

When the pintura and questionnaire response from Culhuacán arrived in Spain, they were unlike the rest. Instead of folios of European rag paper accompanied by unsigned, folded pinturas, Culhuacán's contribution was a letter, made of Indigenous paper and signed by an Indigenous man. Culhuacán's response looked different, felt different, and told a different story about the town and artist. The special use of San Agustín's pintura as an envelope for the written questionnaire makes the act of its unfolding upon its arrival in Spain of particular interest.

As his last act before sending Culhuacán's Relaciones Geográficas response to be shipped across the Atlantic, San Agustín signed his name across the folded pintura. He wrote, "Fue el pintor Pedro de San Agustín. *Pintura de Culhuacán*" ["It was the painter Pedro de San Agustín. *Pintura de Culhuacán*]."[89] It is this signature which would become the first detail the Spanish would see of Culhuacán's contribution to the Relaciones Geográficas project.

The act of signing, whether on a document, painting, or letter, conveys authorship, authority, power, and responsibility. A signature imbues the work with a certain level of importance, as the signer uses their own name to designate the work as worthy of being associated with them.[90] As a mark of one's hand, a signature serves as the extension of the signer, placing value both on the work and on the signer himself.[91] In its position on the outside of the folded *Pintura de Culhuacán*, San Agustín's signature demanded that his work be respected and that he be credited for his good work. Knowing that San Agustín understood the *Pintura de Culhuacán* to be going to the king, the placement

[89] It is interesting that San Agustín self-identifies as *pintor* in his signature on the reverse of the *Pintura de Culhuacán*.

[90] Susan V. Webster, "Of Signatures and Status: Andrés Sánchez Gallque and Contemporary Painters in Early Colonial Quito," *The Americas* 70, no. 4 (2014): 643.

[91] Webster, "Of Signatures and Status," 606.

of his signature as the first thing Philip would see demonstrated a high level of confidence and self-respect.

By finalizing the pintura and relación, San Agustín exhibited control over the Spanish receiving his work. Although he was not in the room with the individuals reading the pintura in Spain, San Agustín influenced their interpretation by controlling the way the Crown accessed the information. As an envelope enclosing the *Relación de Culhuacán*, San Agustín's *Pintura de Culhuacán* held, both figuratively and physically, the information Philip desperately desired from the New World. Yet, to access the written documents or view the pintura, Philip had to acknowledge the Indigenous artist's signature on the outside of the project. The signature challenged the Spanish to engage with San Agustín as an authority figure and acknowledge the power he held over their experience with Culhuacán.[92]

What was revealed when the pintura was unfolded was a scene San Agustín set from 4,000 miles away, perfectly designed to situate his pintura at the center of the Crown's exploration of Culhuacán. San Agustín's folding process ensured that the Spanish unfolding the pintura would see the *Relación de Culhuacán* laying face-up atop the pintura, ready to be picked up and read. San Agustín expertly crafted this experience to make his work inseparable from the written portion of the text. Just as the artist did when he completed the glossing of the *Pintura de Culhuacán*, San Agustín invited the Spanish to read and look at the same time.

Although San Agustín folded and signed his work to encourage Spanish participation with his *Pintura de Culhuacán*, a close examination of the *Relación de Culhuacán* reveals that the Spanish were more interested in the written text. Along the top of the *Relación de Culhuacán* are notes from the Spanish cataloguing process common under Philip's bureaucratic reign.[93] In his attempt to control the environment around him, the king was known for maintaining meticulously

[92] Webster, "Of Signatures and Status," 615, 634.

[93] Martin A. S. Hume, *Philip II. Of Spain* (Greenwood Press, 1970), 200; Parker, *Philip II*, 27-31.

organized collections of documents, earning him the title of "Paper King."[94]

In addition to the written cataloguing information, a reader of the *Relación de Culhuacán* marked the top of each of the four pages with a series of lines likely used to mark that the document was seen or read. These marks, like the cataloguing information, can be seen in some form across the majority of the relaciones. Similar crossed lines appear on documents Philip signed, as if he noted that he read and approved the document before signing.[95] Even if it was not Philip's hand marking these documents, the presence of these marks reflected the sentiment of the individuals receiving the works: to read, understand, and control.

The direct interaction between the readers of the *Relación de Culhuacán* and the document itself reveals a level of engagement not present between the *Pintura de Culhuacán's* viewers and the pintura. Unlike the cataloguing and marking of the top of the *Relación de Culhuacán*, there is no evidence of Spanish notetaking, commentary, or cataloguing visible on the pintura.[96] As established, Philip and his cartographers held a strong interest in the information pinturas of the New World could provide. In the questionnaire instructions, Velasco emphasized the importance of the project, noting that if any part of the project be delegated to individuals other than high-level Spanish administrators, as many towns did for the completion of the pintura, these individuals must be "intelligent persons with knowledge of matters of the area require[ed] to follow the specifications of the

[94] Henry Kamen, *Philip of Spain* (Yale University Press, 1997), 214; Parker, *Philip II*, 27-31; Hume, *Philip II. Of Spain*, 200.

[95] Parker, *Philip II*, 13.

[96] There is evidence of such marks along two pinturas made by Francisco Stroza Gali: The *Pintura de Teguantepec* (1580) and the *Pintura de Coatzacualco* (1580). Stroza Gali's two works have a notably Spanish style with hatched shading and measurements in leagues. Such Spanish interaction with these pinturas underscores the understanding that the Spanish did not comprehend San Agustín's work and, therefore, did not engage with it.

Memorandum."[97] The Relaciones Geográficas project was not the first, nor the last, request for geographic information from the New World colonies.[98] Ultimately, Velasco's goal as *cosmógrafo-cronista mayor* was the completion of a chronicle-atlas complete with pinturas of the regions.[99] Therefore, this lack of engagement with San Agustín's pintura does not reflect a lack of interest in the content of the work, but an inability on the part of the Spanish to extract the information it contained about the town and its residents. Despite San Agustín's meticulous efforts to communicate messages about the prevalence of Indigenous power in Culhuacán, the town's ability to follow Spanish rules, and the artist's personal political and artistic strengths, there is little evidence to suggest that the Spanish Crown gleaned this information from his *Pintura de Culhuacán*. Instead, a cultural difference in the purpose of pintura-making and the information these works were understood to contain limited the Crown's ability to benefit from San Agustín's work.

Although Velasco distributed the Relaciones Geográficas questionnaire in 1577, the Spanish interest in visually documenting their territory began a decade before.[100] A 1566 note to cartographer Pedro de Esquivel ordered the cartographer to, "note down by personal observation the actual location of all places… however small they may be [that] the description of Spain may be as exact and complete, as detailed and excellent, as His Majesty desires […]"[101] As

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[97] Cline, "The Relaciones Geográficas," 364. Cline provides the English translation to the "Cédula, Instruction, and Memorandum, for the Formation of the Relaciones and Descriptions of the Places of the Indies."

[98] Mundy, *The Mapping of New Spain*, 11-27.

[99] Felipe E. Ruan, "Prudent Deferment: Cosmographer-Chronicler Juan Lopez de Velasco and the Historiography of the Indies," *The Americas* 74, no. 1 (January 2017): 38; Mundy, *The Mapping of New Spain*, 17-18. Here, Mundy employs the term chronicle-atlas in relation to Alonso de Santa Cruz's mapping project.

[100] Cline, "The Relaciones Geográficas," 347; Mundy, *The Mapping of New Spain*, 18; Kagan, *Urban Images of the Hispanic World*, 34.

[101] Dupont, "Creating Philip II's Vision," 17: Parker, *Philip II*, 47.

seen in Philip's compulsion to read and sign each document that passed his desk, his interest in laying eyes on his possessions extended to a point of desiring complete control.

In 1569, three years after the letter to Esquivel, cartographer Juan de Ovando took up a similar atlas-making project for the New World.[102] Ovando constructed a series of questionnaires (1569, 1570, 1573, 1575) to collect cultural and geographic data from the colonies across the Atlantic.[103] Historians describe Ovando in much the same way they describe Philip: curious, ambitious, and "almost obsessive."[104] The two men's insatiable desire for information, combined with the knowledge of promising results from the European cartographers, established high expectations for the cartographic project of the New World.

When Velasco took over the project from Ovando, he had defined goals for meeting these expectations. The *Ordenanzas del Consejo de Indias*, passed by Philip in 1571, outline many of Velasco's objectives as *cosmógrafo-cronista mayor*. Velasco was tasked with producing maps using the data received from the New World, organizing the recording of lunar eclipses in the Indies, and completing a general history of the New World colonies.[105]

Velasco never realized these three major objectives, and an official history of the New World was not published until over a decade after he left the position.[106] Nevertheless, Velasco received much of the information needed to complete this task for the town of Culhuacán from the work of San Agustín. The way San Agustín's *Pintura de Culhuacán* was received upon its arrival in Spain, however, reveals Velasco to be neither capable of interpreting the work nor

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[102] Stafford Poole, *Juan de Ovando: Governing the Spanish Empire in the Reign of Philip II* (University of Oklahoma Press, 2004), 141.

[103] Poole, *Juan de Ovando*, 141.

[104] Poole, *Juan de Ovando*, 141-2; Kamen, *Philip of Spain*, 214; Parker, *Philip II*, 27-31; Hume, *Philip II. Of Spain*, 200.

[105] Ruan, "Prudent Deferment," 38-39.

[106] Ruan, "Prudent Deferment," 53; Mundy, *The Mapping of New Spain*, 26-27.

understanding just how well San Agustín fulfilled the project's requirements.

Although he would not have seen the goals outlined in Velasco's job description regarding the construction of the chronicle-atlas, San Agustín submitted a pintura which, if understood, would have served the *cosmógrafo-cronista mayor*. Satisfying the first task of mapmaking, San Agustín produced a geographically accurate pintura with important notable landmarks. To achieve the second of his three goals, the construction of a general history, Velasco could have noted the pintura's orientation or material. San Agustín oriented the pintura towards the Cerro de la Estrella, the site of the pre-contact New Fire ceremony and used amate, a sacred pre-contact paper.[107] Had he understood their significance, Velasco would have been concerned, as a Spanish Catholic working under Philip, to see these traces of Indigenous history still present within the culture of Culhuacán. Nevertheless, these details provided the insight necessary to complete part of the general history that would forever remain unfinished.

Yet, the lack of visible interaction with the *Pintura de Culhuacán*, combined with the actions taken by the Spaniards upon its arrival in Spain, demonstrate that the work did not succeed in conveying all of San Agustín's commentary to the Spanish. Nevertheless, to propose that San Agustín's *Pintura de Culhuacán* communicated nothing to the Spaniards who received it would be grossly limiting. Those reviewing the work at this time could identify the churches as expressions of Catholic presence throughout the region.[108] San Agustín's presentation of these parishes in a European three-quarter style and use of Spanish glossing signaled that education of the Indigenous population was still occurring. While these

[107] Helmke and Garcia, "Caves and New Fire Ceremonies," 56; Winning, "The 'Binding of the Years'," 16; Neumann, "Paper: A Sacred Material," 149-59.

[108] Cline, "The Relaciones Geográficas," 354. When Velasco signed his receipt of the Relaciones Geográficas, they had been in the possession of the Council of the Indies.

details suggested the success of the colonizing mission in the New World, other elements presented a more complex reality.

In 1577, Bernardino de Sahagún completed his translation of the *Florentine Codex* for Philip and the Council of the Indies.[109] Having seen Sahagún's work, many individuals viewing the *Pintura de Culhuacán* would be aware of pre-contact stylistic details like footprint-laden roadways and post-and-lintel shaped buildings. Although unable to read it without San Agustín's glossed translation, Spanish viewers could also have identified the hill-sign as a pre-contact glyph.

To a Spanish audience interested in control and submission, the convergence of artistic style present in the *Pintura de Culhuacán* demonstrates a cultural hybridity within New World colonies that likely disturbed Spanish recipients.[110] By 1583, when Velasco signed to confirm his reception of the Relaciones Geográficas documents, the Crown had been receiving complaints about separatism, corruption, and mistreatment of the Indigenous population for over a decade.[111] These notices of unrest across the Atlantic only heightened Philip's need for information and compulsion to reestablish control. When the results of a project intended to serve as a solution to the problem appear to confirm one's worst suspicions, it is understandable to want to lock the documents away and hope for better news. In fact, that was exactly what the Spanish did.

In April of 1577, as early as a month before the distribution of the Relaciones Geográficas questionnaire, Philip had already begun limiting access to information arriving from the New World.[112] The king had become suspicious of the relationship between the mendicant orders and the Indigenous population, believing the friars to be neglecting their responsibilities.[113] As yet another way to

[109] Poole, *Juan de Ovando*, 142.
[110] Ruan, "Prudent Deferment," 30.
[111] Poole, *Juan de Ovando*, 114; Ruan, "Prudent Deferment," 30.
[112] Poole, *Juan de Ovando*, 144.
[113] Poole, *Juan de Ovando*, 144.

control the social and political state of his territories, Philip mandated that all documents referencing the history of the New World be collected and all access to the information be controlled.[114] Philip required even Velasco himself to store his work in secret archives.[115] It is likely that the Council of the Indies stored the received Relaciones Geográficas in a similarly controlled archive in Madrid, where they are believed to have stayed until 1659 when they were transferred to the General Archives of Simancas.[116] Hiding documents and limiting access to information reflect the practices of a system afraid of the unknown. The Spaniard's inability to interpret the significance of works like San Agustín's *Pintura de Culhuacán* was remarkably dangerous. A difference in culture and a lack of historical understanding made comprehending the nuances of the Indigenous artist's pintura impossible. What they could not understand, they could not control. Hence, San Agustín's *Pintura de Culhuacán*, with its messages about Indigenous power and living Indigenous culture, made its way into an archive only accessible to those unable to interpret it.

Conclusion: What is a Map?

> "The map spreads out the entire world before the eyes of those who know how to read it."
>
> — Christian Jacob, "The Sovereign Map"[117]

The Spaniard's failure to fully understand San Agustín's *Pintura de Culhuacán* may originate from a more fundamental difference between European and Indigenous conceptions of what and how a map is meant to communicate. The works that Philip commissioned from his Northern European cartographers served a primarily political and militaristic

[114] Ruan, "Prudent Deferment," 45; Poole, *Juan de Ovando*, 144.
[115] Ruan, "Prudent Deferment," 39.
[116] Cline, "The Relaciones Geográficas," 354-5.
[117] Christian Jacob, *The Sovereign Map: Theoretical Approaches in Cartography throughout History* (University of Chicago Press, 2006), 11.

role.[118] Philip desired to use these works to get a visual sense of the lands and resources he owned. To achieve this, the cartographers focused their maps on the *urbs*, or physical components, of the cities.[119] These works were highly geographically accurate, highlighting topographical details. Even details of these maps that appeared to present *civitas* aspects of the land, like in Wyngaerde's *View of Valencia*, did so to prioritize the physical and topographic lay of the region.[120]

Creating maps for the purpose of geographic information is a European tradition that does not appear to translate to San Agustín's *Pintura de Culhuacán*. Instead, the Indigenous artist's work aimed to tell a story rather than guide an army. San Agustín was likely not measuring distances, calculating angles, nor using the Ptolemeic understanding of space that European cartographers came to employ.[121] Nor was that level of accuracy San Agustín's goal. Instead, the artist's spatial accuracy likely came from a history working with land grant maps and a knowledge of Spanish interest in a certain amount of topographic information. There is not much evidence of pre-contact maps within this region due to the Spanish colonizers' destruction of most of this unreadable (and therefore dangerous) information. It is therefore challenging to determine if geographic accuracy was important to pre-contact mapmakers or if they understood maps to be more *civitas*-like representations of cities.[122] Nevertheless, to impress the Spanish and make the claims he does regarding the development of Culhuacán and his own sophistication, San Agustín imbued his work with a level of geographic accuracy. Still, it is the communication of *civitas*

[118] Dupont, "Creating Philip II's Vision," 16.
[119] Kagan, *Urban Images*, 9. Here, Kagan provides a great description of *urbs* and *civitas* in the context of Philip II.
[120] Kagan, *Urban Images*, 14.
[121] Ricardo Madron, *The Spacious Word: Cartography, Literature, and Empire in Early Modern Spain* (University of Chicago Press, 2004), 35; Mundy, *The Mapping of New Spain*, 3-5.
[122] Kagan, *Urban Images*, 46-49.

information that formed the basis of San Agustín's cartographic project.

In a way, San Agustín used the geographic accuracy of his map to communicate messages about Culhuacán society. Although land grant maps were geographically accurate and served the purpose of marking land, they also helped prove the genealogic history of the land to stake a claim regarding ownership.[123] Believing that part of the intention of the *Pintura de Culhuacán* was to make a similar case to the Spanish about the ownership of Culhuacán, it is understandable that San Agustín would emphasize the *civitas* aspects of the city to highlight human presence. San Agustín's reworking of the canal, use of footprint-laden streets, and restructuring of the Church of San Juan Evangelista demonstrated the *Pintura de Culhuacán's* function as a representation of the Culhuacán community. In editing the canal system, San Agustín altered the symmetry of the Spanish roadways, showing a greater interest in connecting the city to its Indigenous heritage than maintaining geographic accuracy. The footprint-covered streets visually present human movement throughout the city, while also connecting Culhuacán to its pre-contact visual tradition. Finally, the reworking of the Church of San Juan Evangelista, instead of serving to move the church to a different location, functioned only to redesign it. This suggests that San Agustín put a significant amount of additional effort into the Church of San Juan Evangelista not because of its status as a geographic landmark, but its status as a societal landmark important to the community.

These few examples demonstrate that behind each of San Agustín's decisions regarding the placement of landmarks geographically was an interest in communicating social history and culture. This was a fundamental difference between the European and Indigenous conceptions of a map's purpose. When assessed through the lens of providing geographic information for political and military purposes, San Agustín's *Pintura de Culhuacán* falls remarkably short. Yet, to an Indigenous man who employs pinturas to tell stories

[123] Mundy, *The Mapping of New Spain*, 187-8.

and recount social histories, the *Pintura de Culhuacán* far exceeds its goals.

In addition to conceptual differences regarding what information a map contained, European and Indigenous societies had widely different practices for how this information was communicated. Christian Jacobs captures the unique relationship maps have to both their creators and their viewers writing, "The map spreads out the entire world before the eyes of those who know how to read it."[124] What happens, however, when the creator and the viewer have two distinct understandings of what it means to "read"? This was the predicament facing the artists and receivers of works like the *Pintura de Culhuacán*. San Agustín constructed his pintura to be "read" as an educational work, combining painting, writing, and reading according to Indigenous tradition. This practice originated from his experience in the monastic education system, where friars used images to tell biblical stories, and possibly in land grant mapmaking, where courts used maps as reference tools for cases.[125] Knowing that he would not be able to personally complete the act of "reading" his pintura to Philip, San Agustín worked meticulously to add Spanish glosses, emphasize specific elements, and incorporate details central to his story. San Agustín went so far as to show the Spanish how to succeed in this type of "reading", folding his pintura around the *Relación de Culhuacán* to visually connect art and written text. Unfortunately for San Agustín, even his best efforts could not alter the Spaniards' cultural understanding of reading written text and "reading" a map as two distinct processes.

This European distinction between reading text and "reading" art reflects itself in the structure of the Relaciones Geográficas project itself. Although they requested them at the same moment, the Spanish conceived of the questionnaire responses and pinturas separately. While the *Relación de Culhuacán* received special attention and attentive cataloguing, no evidence of this interest can be found on the

[124] Jacob, *The Sovereign Map*, 11.
[125] Pulido Rull, *Mapping Indigenous Land*, 2.

accompanying pintura. Many of the questionnaire prompts asked for the *civitas*-type information, suggesting that the Spanish understood the written documents to share social histories. In contrast, the instructions for the pintura ask only for the artist to "give a plan or colored painting showing the streets, squares, and other places…," showing that the pintura is meant to communicate geographic relationships. Hence, the Spanish did not take on the process of "reading" the *Pintura de Culhuacán* for imbedded social histories because the act of "reading" the map was not part of European mapping culture. Instead, the *Relación de Culhuacán* fulfilled the role of providing *civitas* information.

The cultural differences in the way European and Indigenous individuals understood what and how maps convey information contributed to the Spaniards' inability to comprehend the *Pintura de Culhuacán*. Despite San Agustín's thorough preparation of a map that perfectly served his purpose, the individuals receiving his work across the Atlantic held a cultural understanding of maps incompatible with his. This cultural divide underscores the division between expectation and reality that pervaded the history of the Relaciones Geográficas project and helps contextualize the story of San Agustín's *Pintura de Culhuacán*.

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Table 1: Fold-Type Categorization of *Relaciones Geográficas Pinturas* from JGI Collection

Pintura Name	Size (cm.)	Categorization	Notes
Pintura de Culhuacán	70x54	Relación Fits; Sealed	
Pintura de Cempoala	83x66	Relación Fits; Sealed	
Pintura de Acapistla	85x62	Bound Folios	
Pintura de Huaxtepeque	85x6	Bound Folios	
Pintura de Coatzacualco	85x31	Bound Folios	
Pintura de Atengo y Misquiahuala	77x56	Relación Fits; No Seal	
Pintura de Zapotitlan	40x62	Relación Fits; No Seal	Measurement Unclear
Pintura de Meztitlan	58x42	Relación Does Not Fit	
Pintura de Tistla y Muchitlan	76x56.5	Relación Does Not Fit	
Pintura de Teozacoalco	176x138	Relación Does Not Fit	
Pintura de Amoltepec	81x92	Relación Does Not Fit	
Pintura de Teguantepec (1 of 2)	42.5x58	Relación Does Not Fit	
Pintura de Santiago Atitlan	61.5x81	Relación Does Not Fit	
Pintura de Atlatlauca & Suchiaca	42x31	Folio	
Pintura de Iztapalapa	42x31	Folio	
Pintura de Tetliztaca	31x43	Folio	Bound
Pintura de Epazoyuca	31x21.5	Folio	
Pintura de Ameca	43x31.5	Folio	
Pintura de Papantla	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Tecolutla	21.5x31	Folio	Part of Relación de Hueytlalpa

Table 1: Fold-Type Categorization of *Relaciones Geográficas Pinturas* from JGI Collection *(cont.)*

Pintura Name	Size (cm.)	Categorization	Notes
Pintura de Tenanpulco y Matlactonatico	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Jujupango	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Hueytlalpa	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Zacatlan	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Matlatlan y Chila	21.5x31	Folio	Part of Relación de Hueytlalpa
Pintura de Misantla	44x31	Folio	
Pintura de Cholula	43x31	Folio	
Pintura de Gueguetlan	31x21.5	Folio	
Pintura de Quatlatlauca	43x31	Folio	
Pintura de Cuzcatlan	43x30	Folio	
Pintura de Veracruz (1 of 2)	43x29	Folio	
Pintura de Veracruz (2 of 2)	43x29	Folio	
Pintura de Ixcatlan (1 of 2)	33x31	Folio	
Pintura de Ixcatlan (2 of 2)	31.1x21.5	Folio	
Pintura de Teguantepec (2 of 2)	22x31	Folio	
Pintura de Tecuicuilco	21.5x31	Folio	
Pintura de los Peñoles	44x31	Folio	

Pesto and Potions
Bartolomeo Scappi's *Opera* and the Chef as Physician in Early Modern Italy

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"If the foods were copious, so were the drinks numerous," writes French satirist François Rabelais about an all-day feast held in March 1549 by Cardinal Jean du Bellay to mark the birth of the Duke of Orleans. Du Bellay, Rabelais' employer, held the festivities in honor of the to-be short-lived son of Henry II and Catherine de Medici. It was an exceedingly decadent affair. A mock combat and separate naval battle on the Tiber preceded the feast itself, which consisted of fully stocked table-settings throughout multiple rooms of du Bellay's palace, thousands of assembled dishes, and an after-dinner "theatrical entertainment." Among the attendees were Cardinal Alessandro Farnese (the namesake of his grandfather, Pope Paul III), a Strozzi ambassador from Venice, and at least eleven other cardinals.

Rabelais, then serving as a physician and secretary to du Bellay, kept a full record of the March 1549 festivities. In his account, Rabelais claimed that guests consumed at least thirty puncheons of wine (equal to 2,100-3,600 imperial gallons) and could choose from one thousand cuts of fish and fifteen

hundred individual pastries.[1] Du Bellay opened the doors of his palace to the eager public for the feast.[2] The known scale of food, drink, and attendance would have been impressive by any standard, though Rabelais' description of the feast is brief within his larger account of the day's events.[3] He does, however, say that du Bellay's feast surpassed the scale of those of ancient Rome, specifically referring to "Vitellius' table and cuisine."[4] At the time, Rabelais' reference to the infamously gluttonous and overweight Roman emperor Vitellius (r. 69 C.E.) is a learned expression of the feast's excess and appeal to even the most insatiable of appetites.[5]

While Rabelais most likely did not know him by name, the indulgence of those lucky enough attend the festivities of that day and night owed their compliments to the chef, Italian culinary mastermind Bartolomeo Scappi (c. 1500–April 1577).[6] Scappi was among the first "celebrity" chefs. He was highly regarded by his contemporaries, employers, and the many illustrious and fortunate attendees of his spectacular feasts, some of which are recorded in his encyclopedic *Opera dell'arte del cucinare* (1570). The sheer volume of Scappi's prepared feasts alone provide ample evidence of the massive wealth and influence that the servants of the Church—both ecclesiastical and functional—had available to them, and their willingness to use this wealth for strategic sociopolitical purposes.

Du Bellay's feast is a prime example of how one chef's superintendence of a large, experienced staff served as

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[1] Bartolomeo Scappi, *The Opera of Bartolomeo Scappi (1570): L'arte et prudenza d'un maestro cuoco, The Art and Craft of a Master Cook*, trans. Terence Scully (University of Toronto Press, 2008), 408-412; "Volumes or Capacity," University of Nottingham.

[2] Scappi, *Opera of Bartolomeo Scappi*, 408-412.

[3] Scappi, *Opera of Bartolomeo Scappi*, 402, 408; ed. and trans. Donald M. Frame, *The Complete Works of François Rabelais* (University of California Press, 1999), 799-800.

[4] Mark Bradley, "Obesity, Corpulence and Emaciation in Roman Art," *Papers of the British School at Rome* 79 (2011): 2.

[5] Bradley, "Obesity, Corpulence and Emaciation in Roman Art," 2-3.

[6] Scappi, *Opera of Bartolomeo Scappi*, 19.

essential support for an entire political and social order. Therein lies part of the importance of cuisine since time immemorial: it serves to impress, intimidate, deceive, and delight, like music, painting, dance, or any other performance. Food is a supporting act that may seem inconsequential when present but is ruinous when absent. Politics and society often require gastronomy as a prerequisite for action. Food also acts as a device to divide time into digestible segments. These realities Scappi knew as well as he did the art of cooking.

By examining the life of the papal chef Bartolomeo Scappi and his widely published cookbook *Opera*, as well as the work of his predecessors and contemporaries in the kitchen, this paper considers how the medical role of the professional chef evolved from that of the humble cook. So doing, it explores the following questions. How does the Scappian chef of the Renaissance differ from the medieval cook? For whom did Scappi write his *Opera*, a text that is in part cookbook, in part a description of the skills and proficiencies of the Scappian chef? Where did the chef stand in Early Modern Italian society and how did Scappi bridge Renaissance social hierarchies, from Cardinals and princes to the frog-sellers and cheese mongers who sold their goods outside his kitchen doors? [7] Throughout all of these elements, how does the chef encounter the physician in his daily duties and how did these two domestic roles intermingle in the Early Modern period?

With origins in rural Lombardy, Scappi was a renowned and expert chef active throughout the mid-to-late-sixteenth century in Milan, Venice, and Rome.[8] Scappi directly served Popes Julius III (r. 1550–1555), Pius IV (r. 1559–1565), and Pius V (r. 1565–1572) as well as several senior cardinals of

[7] Melissa Calaresu, "Street 'Luxuries': Food Hawking in Early Modern Rome," in *The Oxford Handbook of History and Material Culture*, ed. Ivan Gaskell and Sarah Anne Carter (Oxford Academic, 2020), 430-32.

[8] Scappi, *Opera of Bartolomeo Scappi*, 21-25.

various Italian origins.[9] His long service culminated in an opportunity to publish his life's work and knowledge as a cook in a single volume with full papal approval from Pius V. *Opera* is the product of continuous work through the 1560s, by both Scappi and his publishers, the Tramezzino brothers of Venice, who printed the first edition of *Opera* in 1570.[10] The book was successful upon first printing and proliferated across Europe in translations and copies. It remained in circulation through many editions from the Tramezzino brothers and by various other publishers over the following decades well into the seventeenth century.[11]

Split into six books on topics including feast composition over the year, food for the convalescent, and cooking methods, *Opera* contains over a thousand separate and intuitively organized recipes. Interspersed within the book, Scappi includes personal commentary as well as dozens of precise print diagrams to demonstrate such things as categories of tools and their diversity, ideal kitchen schematics, and the roles and hierarchy within the courtly kitchen.[12] It is a text that takes influence from an uncountable number of otherwise-unrecorded cooks and regional traditions, and one that exists at the crossroads of the Protestant Reformation, the Columbian Exchange, and phenomena associated with the Italian Renaissance.

Scappi's *Opera* demonstrates the medical role of the cook as an "elite" servant. Through his experience, talent, and passion, Scappi advanced and modeled a vision of the chef—as an artist, as opposed to the artisan—as a linchpin of any aspiring household. While this work concerns the role of the chef as a physician, one must note the importance of the Scappian chef as a cook, a political operative, and a gourmet in addition. With these elements combined, the Scappian cook was no less than a polymath, one who applied these skills to the administration of life itself by cooking, cleaning,

[9] Scappi, *Opera of Bartolomeo Scappi*, 9-11.
[10] Scappi, *Opera of Bartolomeo Scappi*, 27, 89.
[11] Scappi, *Opera of Bartolomeo Scappi*, 27.
[12] Scappi, *Opera of Bartolomeo Scappi*, 629-662.

organizing, and pleasing others. Such varied technical mastery was, for Scappi, unremarkable, as if being such varied expertise was in fact the norm.

The result was a culture of individual brilliance and the organization of countless specialized laborers and artisans who supported these culinary endeavors in the service of a mighty few. The Scappian chef dazzled and beguiled with their creations, the result of long nights and days of labor. It is impossible to trace for certain the influence of *Opera* and Scappi upon his successors on Europe's gastronomic main stage. Nevertheless, many European chefs after Scappi came to know him through this magnum opus and take after him and his recipes at his word; otherwise, they would follow in his footsteps unknowingly.

Although an essential human skill, one that likely contributed to advances in all civilizations, cooking nevertheless holds an ambiguous place in society.[13] In its most basic form, the function of a cook is to feed people, and domestic cooking remains uncompensated work for women in most cultures. In Early Modern Italy, the social position of the professional cook, held by men, began to ascend, as opposed to the relegated but integral components of the kitchen held by domestic servants of different sexes and origins. Development of this dual-track social position and function of the cook may be partly due to new and renewed trade networks as well as expansion of wealth and increased availability of written material beyond religious texts during the Early Modern period in Italy. This climate made Renaissance Italy fertile ground for culinary and food studies research, as evinced by the monumental scale and specificity of expert analyses on the topic by scholars, including Kevin Albala, Melissa Calaresu, Carlotta Paltrinieri, and Deborah L. Krohn. Considered together, their work lays

[13] Suzana Herculano-Houzel, *The Human Advantage: A New Understanding of How Our Brain Became Remarkable* (Massachusetts Institute of Technology Press, 2016), 193-98.

the foundation for studying Scappi's influence on cookery and medicine in Early Modern Italy.[14]

Albala's earlier work concerns Renaissance dietary practices and beliefs as well as general Renaissance culinary history. He has since become a popular historian who excels at creating accessible content (e.g. video, written, audio, etc.) for non-academic audiences. His 1993 Ph.D. dissertation, "Dietary Regime in the Renaissance," is a concise exploration of medieval and Early Modern European nutrition.[15] This dissertation explores how modern medical knowledge, social practices, and demographic shifts influenced popular culinary trends; in turn, this inspired my approach to abstract ideas of "nutrition" and "diet" and their linkage to Scappi's role as a credible medical authority and a tastemaker, among his other responsibilities.[16] Another of Albala's books, *Eating Right in the Renaissance*, has proved to be extremely helpful for finding further sources on daily events and cultural practices in Early Modern Italy.[17]

Melissa Calaresu's research focuses on the material culture and urban landscape of Early Modern Italy, making her an invaluable resource in examining how cooking fit in Renaissance daily life. One of her articles focuses entirely on the street-food culture of Early Modern Rome, which she compiled from everyday print media, as well as illustrations of typical types of street businesses and sellers.[18] Among the forms of print media she examines are *avvisi* and *bandi*, or news slips and notices that were sent to and from Italy and wider Europe in public or semi-public circles, providing

[14] Ken Albala, *Eating Right in the Renaissance* (University of California Press, 2002); Calaresu, "Street 'Luxuries:' Food Hawking in Early Modern Rome," 415-32; Debora L. Krohn, *Food and Knowledge in Renaissance Italy: Bartolomeo Scappi's Paper Kitchens* (Routledge, 2018).

[15] Albala, *Eating Right in the Renaissance.*

[16] Ken Albala, "Dietary Regime in the Renaissance" (PhD diss., Columbia University, 1993).

[17] Albala, *Eating Right in the Renaissance*.

[18] Calaresu, "Street 'Luxuries': Food Hawking in Early Modern Rome," 415-32.

valuable, timely information to correspondents. *Avvisi* and *bandi* circulated in both semi-public institutions like markets or societal organizations and private and sometimes clandestine networks like those of the Medici and the Fuggers.[19] Calaresu, along with Carlotta Paltrinieri of Royal Holloway in London, are two scholars whose writings have guided my research, along with the Medici Archive Project's rapidly expanding online database of Medici *avvisi*. In this context, Calaresu is a scholar of colloquial Early Modern cultural phenomena relative to Albala and Krohn.

Finally, the origins of my paper can be traced to Terence Scully's 2008 translation of the *Opera*. Scully's detailed footnotes, comprehensive introductory commentary, and accessible translation of the original text of *Opera* open up vast opportunities for further research into Italian Renaissance cuisine. Scully's translation was the foundational text that enabled me to first compile research texts and link Scappi's work with elements of Early Modern Roman society and politics, as well as emerging ideas of "nutrition," and the evolution of Early Modern European culinary standards. Scully's work is cited in many contemporary articles and books, in particular Krohn's *Food and Knowledge in Renaissance Italy: Bartolomeo Scappi's Paper Kitchens*, a volume that examines the impact of Scappi's influence both through *Opera* and contemporaneously. It is Krohn's and Scully's books that most directly define the narrow but rich field of Scappi scholarship. This article draws upon these texts to focus on Scappi's cooking to understand the training and practice of an Early Modern chef.

This article further considers several sixteenth-century Medici *avvisi* and *bandi* focused either on the logistics of hosting guests or requests and commentaries on specific foods and beverages. The Medici Archive Project's online

[19] Carlotta Paltrinieri, "Manuscript *Avvisi*: How Pre-Moderns Understood Their World," (talk, Wieboldt Hall 408, May 10, 2023); Through a talk she gave at the University of Chicago in spring 2023, Paltrinieri first exposed me to the existence of *avvisi* and so inspired my decision to use them in this article.

database, called "Mia," is at present in state of constant expansion, and the site allows registered users to access translations, summaries, and transcripts of thousands of miscellaneous documents contained in the Medici Archives in Florence.[20] While most document profiles give only summaries of content and notes for provenance and future identification, a valuable few are fully digitized and include transcripts as well as commentary from the archivist. These archives also contain an impressive selection of letters from or to Roman recipients contemporaneous to Scappi. While I did not refer to them extensively, the sources that Mia makes available to scholars are invaluable for finding otherwise rarely preserved anecdotes about cooking, feasting, and, especially, societal events. These passages provide evidence for the integral role that elite chefs like Scappi had in everyday political and society in sixteenth-century Rome and Florence as well as the multi-faceted nature of the profession exhibited in *Opera*.

Unfortunately, the sensorial experiences that constitute everyday life are not amenable to preservation, and are, at times, unfairly disregarded within cultural and historical studies. It comes as no surprise then that the elements of daily lived experiences, including cooking and tasting, are not often recorded. Hence, contemporary opinions and tastes are inconsistently preserved in historical texts. Therefore, this analysis confronts a challenge: how do we discuss and compare culinary trends or specific dishes across time? How can past, sometimes erroneous medical knowledge be understood from the concrete perspective of a contemporary physician? As this paper demonstrates, however, available records provide evidence for the importance of food and cuisine as a culture-creator in Early Modern Italy. This is also why Scappi's *Opera* is a particularly important record of his sensory world and experiences. For three decades, Scappi served as the personal chef to some of the most powerful

[20] Giovani Mascagni to Pier Francesco Riccio, December 9, 1549, 89 recto, vol. 1175, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

men in Italy, and he immersed himself in the demands of making the most lavish and exhaustive banquets possible. In doing so, he accounted for a wide variety of tastes, fads, and changes in trade and fortune over his long career. A condensed part of that lived knowledge remains recorded in the text of *Opera*.

'L'arte et prudenza': On Scappi and Writing Opera

Understanding the text of *Opera* and the historical context in which Scappi created it proved integral to revealing his revolutionary role in the evolution of the chef. *Opera* is the means whereby Scappi elaborated his culinary technique, proliferated his particularities in taste, and detailed his thoughts on cookery within the Early Modern household. If any single volume can prove how the cook could transcend their simple role in the kitchen, then *Opera* is a fine candidate. While preceded in earlier centuries by works from Maestro Martino (b. 1430–1484?) and Bartolomeo Sacchi 'Il Platina' (1421–1481), Scappi's *Opera* was the first cookbook in Western Europe that was widely distributed and remained popular and accessible to vernacular readers.[21] While some of these factors were contingent on favorable timing, much of *Opera*'s success must be attributed to Scappi's unique vision of the cook as a synthesis of disparate professions and skill sets, all of which were necessary and complementary to each other to keep a kitchen stocked and a cook working.

In the following sections, I emphasize the importance of Scappi as a cook and cookery writer before proceeding to the question of dietaries and whether *Opera* can be considered such a text. In order to reveal Scappi's unique position as a cook—one with literary ambitions and his own questions about food theory—I examine Scappi's short biography to

[21] Bruno Laurioux, "Le Prince des Cuisiniers et le Cuisinier des Princes: Nouveaux documents sur Maestro Martino, 'Cocus Secretus' du Pape," *Médiévales*, no. 49 (2005), 147-48; Scappi, *Opera of Bartolomeo Scappi*, 40-41.

speculate about his character, consider the specificities of *Opera*'s various publications, and then proceed to an exploration of *Opera*'s medical ideas and contemporary role. These same pieces of evidence reappear in various forms throughout this article as I attempt to further prove Scappi's importance as a physician.

While *Opera* can undoubtedly be considered Scappi's, the text itself contains scant details about the author's life. What little is known about his origins comes from a commemorative plaque in a church in Dumenza, Lombardy, which was most likely his birthplace.[22] Before the discovery of this plaque, most historians thought of Scappi as Bolognese in origin due to his familiarity with the city and environs as evinced in *Opera*, as well as his service as a chef to the city's Cardinal Lorenzo Campeggio (1474-1539).[23] Scappi did not belong to a wealthy or notable family, having neither the money of a merchant nor the blood of a prince. Save from the publishing of *Opera*, very little would have been recorded about someone who, despite all his talent and hard work, had simply not been born into a family or legacy deemed worthy of a history.

What then can be said of Scappi's personal life and character? Fortunately, as Scappi's life is so closely tied to his text, *Opera* provides many details. In spite of its sparse autobiographical content, there are some passages and hints throughout *Opera* that allow us to piece together the general contours of his life. Scappi's repeated references to Milanese cuisine and produce, as well as his clear knowledge of certain produce and the habitats of animals in northern and central Italy, indicate that northern Italy was at one time his primary residence and the source of much of his general cooking knowledge and training.[24] In particular, Scappi clearly demonstrates detailed knowledge of northern Italy's fish and meat resources. At one point in *Opera*, he describes seeing

[22] Scappi, *Opera of Bartolomeo Scappi*, 25.
[23] Scappi, *Opera of Bartolomeo Scappi*, 11, 14.
[24] Scappi, *Opera of Bartolomeo Scappi*, 19-25.

storks living in the valleys around Comacchio.[25] In the same recipe, Scappi lists further places where these birds can be found, what he observed of their diet, and their preferred nesting habits.[26] Clearly, he had experience living and cooking in northern Italy, enough to distinguish localities by their culinary specialties and to know which environments suited which plant or animal life.

However, Scappi's prestige and status were not bound to Milan or Rome specifically. In fact, in the context of *Opera,* Scappi had a near-universal appeal as an "Italian" first and foremost as opposed to being the representative of a specific city or regional powerbase. Professional cooks such as Scappi were adept at traversing different layers of society as they had to interact with people from all backgrounds by necessity, from cheese mongers and fishermen to cardinals and popes. Thus, he seems to have been relatively free from the extreme factionalism and political upheaval that defined much of the Italian Renaissance. His pan-Italian reputation may be glimpsed on the first pages of the *Opera*, where the publisher acknowledges three authorities: the Papacy (as represented by Pius V and his Papal Chamberlain Francesco di Reinoso), Venice (as represented by the Venetian Senate), and Florence (through a dedication to Cosimo de' Medici, the first Grand Duke of Tuscany).[27] These dedications not only show Scappi's appeal to the three most powerful forces in the Italian peninsula, but also his simple experience working and living throughout the region, as opposed to being sentimentally tied to a city or prince.

Opera itself is divided into six "books:" the discourse, meat-day dishes, lean dishes, preparing meals, pastry, and dishes for the sick (in that order).[28] Depending on the edition, these are followed by an appendix that contains Scappi's account of the funeral of Paul III (r. 1534-1549) and the subsequent conclave that selected Julius III (r. 1550-

[25] Scappi, *Opera of Bartolomeo Scappi*, 209-210, 333.
[26] Scappi, *Opera of Bartolomeo Scappi*, 155.
[27] Scappi, *Opera of Bartolomeo Scappi*, 90-94.
[28] Scappi, *Opera of Bartolomeo Scappi*, vi-vii.

1555).[29] Throughout the entirety of the volume, a great number of engravings depict cooking tools, dimensions of kitchen and preparation areas, different ranks of household staff demonstrating their roles, and a scene from an idealized conclave food procession.[30]

Debora Krohn estimates that printers created at least 75 distinct editions of *Opera* in total, with eleven published between 1570 and 1643. The original publishers of *Opera* were Francele and Michele Tramezzino, a pair of savvy and well-regarded Venetian printers who came to Rome from the Veneto because of Italy's sixteenth-century economic boom in bookselling and printing. They printed at least two distinct editions of *Opera* in the 1570s, with a first run of a thousand copies, as recorded in an inventory list of nearly 30,000 Tramezzino books held within their personal stores.[31]

The Tramezzino brothers operated a mid-sized but prolific print operation and as well as bookshops in Venice and Rome between the 1520s and 1570s, a streak interrupted only by the Sack of Rome in 1527.[32] With passive income generated by sixteen co-owned rental houses in Venice, the brothers were able to print a wide variety of philosophical texts, atlases, Classical works, and medical treatises in editions of a few hundred or thousand.[33] Through her own analysis of their printing output, Krohn asserts that the brothers concentrated on identifying any popular works that could be sold at profitable volumes as opposed to specializing in a specific genre of print. Their focus on sales meant that the brothers were quick to seize upon trends. When the Roman nobility (and the Spanish in Rome) craved Spanish novels and bookstores began to cater to such readers, the Tramezzino began printing runs of Spanish novels. When cookery texts and household manuals began

[29] Scappi, *Opera of Bartolomeo Scappi*, 617-28.
[30] Scappi, *Opera of Bartolomeo Scappi*, 629-62.
[31] Krohn, *Food and Knowledge*.
[32] Krohn, *Food and Knowledge*, 22.
[33] Krohn, *Food and Knowledge*, 23.

to rise in prominence, the Tramezzinos printed texts such as *Opera.*[34]

It is noted in Pius V's foreword to *Opera* that the Tramezzinos published the book at their own expense, in exchange for ten years of exclusive and print and distribution rights to the book from the date of first printing.[35] Pius himself promised to enforce the brothers' rights through temporal and theological means with the possibility of excommunication and a 200-gold ducat fine for any would-be violators.[36] Within their native land, the Venetian Senate—as represented by Julius Zambertus—guaranteed the brothers twenty years of exclusive publishing and commercial rights with a penalty of 300 ducats for violators.[37] Finally, Cosimo I de' Medici gave the Tramezzinos ten years of exclusive print and distribution rights with a penalty of ten gold scudos otherwise.[38] Subsequent editions of *Opera* did not always incorporate these forewords, with a 1596 Pelagolo printing including Pius V's foreword and Scappi's dedication while omitting the other two.

The Tramezzino brothers seem to have taken a further step to protect their publishing rights by carefully crafting the text on the title page of *Opera* so that the twenty-year rights afforded to them by the Venetian Senate appeared to apply to the rights given to them by the Papacy as well.[39] This specific phrase appears in 1570 and 1581 editions, but later, non-Tramezzino do not contain it.[40] While Venice instituted copyright law relatively early in 1491, print houses would still use clever wording to legitimize their books, falsify legal

[34] Krohn, 22-23.
[35] Bartolomeo Scappi, *Opera dell'arte del cucinare* (Venice: Vincenzo Pelagolo, 1596), ii-iii.
[36] Scappi, *Opera dell'arte* (Pelagolo), ii-iii.
[37] Scappi, *Opera of Bartolomeo Scappi*, 92.
[38] Scappi, *Opera of Bartolomeo Scappi*, 93.
[39] Bartolomeo Scappi, *Opera dell'arte del cucinare* (Venice: Alessandro Vecchi, 1610).
[40] Scappi, *Opera of Bartolomeo Scappi*, 78-81, 92.

statements and guarantees in print, and even openly steal

Table 1. *Opera*'s Books and their contents

Book	Contents
I	"Discourse of Scappi with His Apprentice:" This book consists of a summary of necessary culinary knowledge, an inventory of kitchenware, and Scappi's descriptions of the role and function of a cook. It covers the widest range of topics, despite being relatively short compared to the other five books.
II	"Meat-day dishes:" This book includes a selection of various dishes organized (at first) by type of meat according to animal, followed by sections on (a) grains, nuts, and legumes, (b) vegetables, herbs, and minerals, and (c) jellies and sauces.
III	"Lean dishes:" These are foods permissible for serving and eating during Lent. These can be split into two main sections (in order): aquatic (sea fish, freshwater fish, frogs and turtles, crustaceans and mollusks, preserved fish, and "other fish") and non-marine ("other than of fish," e.g., egg dishes).
IV	"Preparing meals:" Here are found sub-sections on feast planning, an example seasonal culinary calendar, and a list of kitchen equipment for travel. This section includes some of Scappi's unabridged menus from named specific feasts.
V	"On pastry:" This section focuses entirely on pastry and is organized by style and use.
VI	"Dishes for the sick:" This is convalescent food, which comes in many forms including soups, "potions," concentrates, stews, "milk dishes," and "sops."

each other's work, all to stay ahead of the baying pack.[41] The nascent world of print in Europe was ruthless and fast-paced

[41] Peter Gradenwitz, "An Early Instance of Copyright: Venice 1622," *Music & Letters* 27, no. 3 (1946): 185–86; Lisa Pon, "'Alla Insegna Del Giesù:' Publishing Books and Pictures in Renaissance Venice," *The Papers of the Bibliographical Society of America* 92, no. 4 (1998): 445, 450; In a brief note on the publishing practices of Early Modern Venice and Europe, many publishers resorted to bold,

by Early Modern standards, and in that climate the Venetian print market was one of the most-eclectic and productive in sixteenth-century Italy.

While much has been made of Scappi's clear talent as a Renaissance chef and the appeal of having a skilled professional like him in one's service, it is important to remember that having a "master cook" and a kitchen to match was one form of luxury spending which had many competitors. The elites of Renaissance Rome had bulging treasuries— private and ecclesiastical— that they had a clear desire to use, and an expanded world which they could influence with their wealth. Among these competing luxuries were exotic animals, grand hunts, rare materials, musicians, sets of armor and weaponry.

In order to understand these luxuries relative to "the feast" as demonstrated by Scappi, it necessary to illustrate the level of luxuries openly available to the clergymen and nobles on a comparable social and financial standing to his employers. This class of people held the ability to indulge interests that other classes did not have the financial standing to and did so regularly. In these cases, it is possible to see both trends in types of spending as well as a diverse set of intellectual and cultural interests that would be expected from a relatively learned and influential part of society. In one example, Cardinal Ippolito d'Este sent four marble statues, one of Hercules, to Emperor Maximilian II in 1569.[42] While the cost is not mentioned in the text of the *aviso*, it is clear from the status of the gifts' recipient that these statues must have been priceless relative to other luxury goods and something that would make a good impression on the emperor. In 1574, an Orsini noblewoman held a feast for

illicit tactics in order to compete in the nascent print trade. A particularly brazen pair of publishers active in early-sixteenth century Venice, Nicolo and Domenico Sandri dal Jesus, directly copied a German edition of an Albrecht Dürer woodcut and falsely stated the source of the copy as being from a Modenese printer.

[42] Cosimo Bartoli to Francesco I de' Medici, December 31, 1569, 664 verso, 665 recto, vol. 3080, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

seventy "noble ladies of the city," which was estimated to cost 3,000 scudi, 300 of which was spent on stockings for a dozen entertainers dressed as nymphs.[43] Duke Cosimo' I de Medici can provide two further examples of luxury spending. In 1544, Cosimo gave his ambassador in Rome 200 scudi with which to buy a horse in 1544.[44] In March 1551, Julius III sent a pair of lionesses to the Florentine, as well as a parrot and kitten for Cosimo's wife Eleanor of Toldo.[45] This is a far call from the simple fare of almonds and flour ordered by the Republican heads of Florence in 1411-12, and it is clear that the demand for luxury goods by elites in Italy as well as their ability to acquire such commodities had increased sharply over 150 years.[46] Whatever form it came in, the ruling class in Italian cities like Rome and Florence took great pleasure and care in their conspicuous consumption.

It is not directly useful to compare the values of these luxury commodities and costly necessities (e.g. a horse) in order to discern a hierarchy of luxuries. However, these examples collectively allow us to understand the tastes of the elite class that could afford to employ "master cooks" like Scappi and provides evidence for his use of *Opera* as a cookbook and treatise on the ideal Renaissance chef.

'Il Fisico': The Chef and the Physician

Early modern chefs had an important role in maintaining the health and diet of their patrons, and both of these were

[43] Avviso from Rome: Arrest of Tiberio Crispo and Giulio Cesare, February 19, 1574, 265 recto, vol. 4026, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

[44] Cosimo I de' Medici to Averardo di Antonio Serrastori, March 26, 1544, 520 recto, vol. 5, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

[45] Lorenzo di Andrea Pagni to Pier Francesco Riccio, March 8, 1551, f.1037r-f.1038v, vol. 1176, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy; The gift to Eleanor of Toldo was by proxy, as the cat and parrot came from a relation of Julius III as opposed to the pope himself.

[46] Antonio Martini et al., f.5r.

understood to be at once distinct and overlapping. In addition to an elite's chef need to be skilled in areas of politics, cooking, and "tasting," a chef as defined by *Opera* also required a knowledge of medicine and the body. A great Renaissance chef was valued for their ability to assist physicians with their treatments in the form of potion-brewing and other convalescent cooking, as well as making their own medical judgements and acting accordingly when needed. This further essential role, filled by the once-humble cook, provides further evidence of Scappi's *Opera* as a seminal text in the evolution of the "elite" European chef.

As someone familiar with a vast array of natural materials and their uses, Scappi or any other trained cook would be a valuable asset for symptomatic response treatments solely on the basis of this knowledge. Furthermore, Scappi's emphasis on observation and practice throughout *Opera* would be ideal virtues for someone tasked with closely monitoring the health of their patron and who may be partly responsible for any medical response. It is through his advice to other chefs and stated dedication to his craft that Scappi demonstrates that the cook is not someone tasked merely to cook but who actively uses their skills to further the interests of their patrons. In this case, that interest is personal in nature as opposed to the papal "dinner theatres" that naturally tended towards political and societal concerns.

Medicine in Early Modern Italy still had strong roots on the Classical works of Galen and Hippocrates.[47] In simple terms, this tradition of medicine was based on two principles: dietetics and therapeutics.[48] Dietetics focused on prevention while therapeutics was concerned with treatment.[49] Of the two, *Opera* reflects Scappi's expertise in dietetics and the specific role that the Early Modern cook had as a member of their patron's physical retinue: to promote "well-being"

[47] Maria Kavvadia, "Making Medicine in Post-Tridentine Rome: Girolamo Mercuriale's *De Arte Gymnastica*: A Different Reading of the Book" (PhD diss., European University Institute, 2015), 3.
[48] Kavvadia, "Making Medicine in Post-Tridentine Rome," 3.
[49] Kavvadia, "Making Medicine in Post-Tridentine Rome," 3.

through their cookery and to prepare cures for physicians when required.

"Prevention" for a chef like Scappi consisted of preparing menus that appealed to the constitution and character of their patrons, and if this was achieved then the "well-being" of their patrons remained in a good state. Diets in this context were a complex and contradictory affair, as chefs and patrons combined and created various assortments of "good" diets that bore little if any resemblance to each other. Ken Albala's research on the Early Modern diet largely focuses on these incongruities and the logic behind them, allowing us to gain an outside perspective into the mind of a Renaissance chef working in highly visible and intensive environment like Scappi.

As Albala notes in "Dietary Regime in the Renaissance," diets in Early Modern Europe did not encompass groups.[50] For each individual, there was a diet; for each diet, there was an individual. The methods of cooking, seasonings, and food items that made up the ideal diet for one person had no bearing on another person. This meant that any general metrics of health related to food consumption outside of widely known poisons were not based on physical experiments, but a mixture of individual analysis, traditional practice, and a highly specialized and diverse set of medical, philosophical, and gastronomic texts that Albala refers to as "dietaries."[51]

While "dietary" is not a classification contemporaneous to the original creation of the texts Albala refers to, the common point among them is their focus on "diet" in place of the wider "medicine" and their belief in the humoral system and its emphasis on balancing the four fundamental elements of blood, phlegm, yellow bile, and black bile.[52] While this belief is more commonly associated with the Middle Ages in popular culture, the humoral theory would persist throughout Scappi's lifetime and several centuries

[50] Albala, "Dietary Regime in the Renaissance," 6.
[51] Albala, "Dietary Regime in the Renaissance," 3-5.
[52] Albala, "Dietary Regime in the Renaissance," 5, 8.

beyond.[53] "Dietaries" as a collective appealed to audiences from the super-wealthy to those impoverished and bedridden, as well as scholars, servants, and early physicians in between.[54]

As someone who worked closely with food under the strain of so many specialized demands (i.e. feasts, funerals, weddings, intimate suppers, etc.), Scappi would have undoubtedly encountered texts on the medicinal properties of diet. His emphasis on experiential learning and study of the craft that appears mostly in Book I of *Opera* further reinforces this.[55] In fact, it is arguable that parts of *Opera* serve as a "dietary," specifically Scappi's notes to a younger chef in Book I and Book VI, which specifically focuses on food for the convalescent.[56]

Considering *Opera* as a "dietary" is fraught with limitations. While I do not think that cookbooks are disqualified from being called "dietaries," not all cookbooks qualify due to their lack of a focus on the "diet" or health in general. A mere focus on cuisine does not account for the diet in the role of medicine that Albala posits is a necessity for identifying a "dietary." Nevertheless, Scappi qualifies himself as some level of medical authority in his introduction to Book VI, calling upon his "long care" of the Cardinal Rodolfo Pio da Carpi as a testimonial.[57] He also cites support in his medical efforts by Federigo Donati, personal physician to Pius V, adding more credibility to the idea of Book VI as a medical text separate from the largely culinary *Opera*.[58]

Despite prior praise of the unique nature of some of its content, much of the format and content of *Opera* is repetitive. While Scappi offers his own knowledge through subtext and through a few notes here and there throughout Books I through V, "diet" as an idea applying to the specific

[53] Albala, "Dietary Regime in the Renaissance," 4.
[54] Albala, "Dietary Regime in the Renaissance," 4.
[55] Scappi, *Opera dell'arte* (Vecchi), f.1v-f.8v.
[56] Scappi, *Opera dell'arte* (Vecchi), f.275v.
[57] Scappi, *Opera dell'arte* (Pelagolo), f.275r.
[58] Scappi, *Opera of Bartolomeo Scappi*, 535.

health needs of an individual does not feature much outside Book VI's convalescent recipes. Nevertheless, this paper presents the cook as a crucial supporting part of a health staff for the elite that also includes physicians, surgeons, and servants.

Before discussing the contents of Book VI, it is important to understand the relationship it occupies in the context of the work. In the Vecchi edition, Book VI runs from page 547 to 614 (f.274l-f.307r), with a table (f.308l-f.310r) following it like the preceding books.[59] This is organized simply and aligns with what I expected based on Scully's translation, with the clear printing displaying mentions of orgeat syrup, every form of milk, and various bowls full of soft, sweet matter.[60] The 1596 Pelagolo edition, however, is rather more unconventional with its formatting.[61] Book VI is not the most "distinct" section of the book, but it is certainly more specialized when approaching food for the ill than the sections— II, III, and V— dedicated solely to recipes categorized by type of food.

Returning to the matter of content, the section opens with a selection of boiled beverages that Scully translates as "potions," each meant to be made under the prescription of a physician.[62] Scappi notes that potions are best made with water from a river like the Tiber or a *conserva*, which was a cistern of water immediately available in the kitchen.[63] On the other hand, stagnant water sources like lakes and ponds,

[59] Scappi, *Opera dell'arte* (Vecchi), f.268v-f.290v.
[60] Scappi, *Opera dell'arte* (Vecchi), f.288v-f.290v.
[61] Scappi, Pelagolo, f.275v-f.305r; While Book VI opens on f.275v, the heading on each left page continues to read "Libro Quinto" until f.275v, where f.276r is labeled "Libro Sesto." Additionally, what should be folio 280 is labeled as folio 288 in bold print in the upper right corner of f.288(0)r. This edition also ends with another error, the final folio of Book IV is labeled 271 and should be 305. The following tables have no folio labels, and the book as a whole finishes with the familiar description of the conclave, followed by a series of print illustrations of kitchen utensils and cooking spaces.
[62] Scappi, *Opera dell'arte* (Vecchi), f.275r-f.276r.
[63] Scappi, *Opera dell'arte* (Vecchi), f.275r.

as well as smaller collections of snow and ice, were not to be used in potion-making.[64] There does seem to be some notion in Scappi's mind that stagnant water is more hazardous to health than running water, but it is unknown at this time whether that results from medical expertise or an earlier culture practice.

The absence of spring water in this passage is puzzling, considering Rome's reputation for long-distance, water-based infrastructure. Scully speculates that the *conserva* water may come from a spring source underground, which would explain why Scappi does not mention spring water when distinguishing between "healthy" and "unhealthy" waters for potions. It would also be easier to use large volumes of water in a demanding kitchen like Scappi's if a spring were available, as otherwise there would have to be designated servants to haul water from a further spring or from the Tiber. While the Vatican complex is close to the river, such water-retrieval would still take hours and multiple servants at the scale required to run a large kitchen like Scappi's.

Since the restoration of the Papacy to Rome, the Roman Church became intensely interested in restoring the neglected and decaying city of Rome, a desire that manifested in everything from building fountains and sewers to hiring great talents like Scappi to impress rivals and allies alike. Among these projects, half a century of popes ordered the restoration of three ancient aqueducts of Rome— the Acqua Vergine, the Acqua Felice, and the Acqua Paola—to functionality starting with the Acqua Vergine (or Aqua Virgo) between 1560 and 1570.[65] This series of constructions was one of the largest Early Modern infrastructure projects to take place in Rome and would largely reverse the neglect that Rome's once-formidable water infrastructure had suffered over the previous millennium.

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[64] Scappi, *Opera dell'arte* (Vecchi), f.275r.

[65] Katherine Wentworth Rinne, "Hydraulic Infrastructure and Urbanism in Early Modern Rome," *Papers of the British School at Rome* 73 (2005): 191.

Unfortunately, Scappi could have only possibly used the water from the Acqua Vergine in the last years of his career and would not have benefited from this more-accessible source of water. This possibility is narrowed further by the fact that the Vatican area of Scappi's employ is served only by the Acqua Paola via a branch that diverges from the main Rome aqueduct, a branch that would have been completed (1607-1612) after Scappi's death.[66]

In general, Scappi's convalescent section relies heavily on hot water and a medley of flavorings. Among them, Scappi's "acqua semplice," or "simple water" is best described as a multi-step boil and filter, with the result being potable water more comparable to a modern standard.[67] If executed to the letter, the medley of microorganisms that would still be present in Scappi's preferred running water sources would be killed by the heat of the multiple boils, and the sediment found in all-natural water-sources would be extracted in between boils. This is indeed something that would benefit a convalescent Roman, as drinking most of these potions would entail only consuming water that has a much lower density of live harmful bacteria than everyday drinking water of the era.

Other ingredients found in these potions include grains, fruits, spices, and herbs like anise and hops.[68] An assortment of unusual recipes call for exotic and prohibitively expensive substances like cinnamon as well as more-known materials like mastic and jujubes—a small red fruit associated with Homer's Lotus Eaters.[69] These choices are a result of humoristic medical logic. Barley is the best example of this fact, as it was stated explicitly to be a cool and dry element to counter mild fevers.[70] Additionally, inedible substances,

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[66] Rinne, 191, 193.
[67] Scappi, *Opera dell'arte* (Pelagolo), f.275v-f.276r.
[68] Scappi, *Opera dell'arte* (Pelagolo), f.305v-f.308v.
[69] Alain Touwaide, "The Jujube Tree in the Eastern Mediterranean: A Case Study in the Methodology of Textual Archeobotany," in *Health and Healing from the Medieval Garden*, ed. Peter Dendle (Boydell Press, 2008), 72-100.
[70] Scappi, *Opera of Bartolomeo Scappi*, 539.

such as in the example of the "ferous potion," also make an appearance as "catalysts" in changing the supposed properties of otherwise plain boiled water.[71] Throughout this section, Scappi continuously appeals to the authority of the Physician—*il Phisico*— most likely referring to Donati.[72]

While humoristic health logic does not perfectly align with modern germ theory and contemporary medical knowledge, there are key alignments in understanding that are shared between the two. In particular, cases of symptomatic treatment are where modern and Early Modern healthcare appear more similar than in other contexts. Symptoms are visible signs of illness and therefore what most human medical developments before the modern era were focused on treating. Over time, people accumulate empirical evidence of the effectiveness of certain natural substances for things like foods, poisons, and pain-relief, and they preserve that knowledge for future generations. It is akin to doing a math equation while missing a crucial definition, but still getting close to the real solution.

In another case, Scappi gives more unintentional sanitary advice in his recipe for "concentrate of capon." He demands that the cook butcher a healthy capon—not too young, not too old—as soon as possible after killing it, saying that the "strength" of the concentrate would suffer otherwise.[73] He also advises minimizing contact between meat and water, with only one "wash" required. In this one passage, Scappi's own procedure would not be unacceptable in a modern kitchen. Scappi avoids the greatest bacterial hazards associated with Early Modern meat by choosing a healthy animal, butchering the meat before decomposition starts, and avoiding unnecessary contamination of the meat by water and vice versa. While these points cannot be taken as a sign of Scappi's premonition of modern germ theory, it is possible to see that Early Modern practices of kitchen preparation and diet present neither a backwards reliance on

[71] Scappi, *Opera dell'arte* (Pelagolo), f.276v.
[72] Scappi, *Opera dell'arte* (Pelagolo), f.275r.
[73] Scappi, *Opera of Bartolomeo Scappi*, 540.

Roman and medieval cultural beliefs nor a flighty humanistic experiment to better the immortal soul. The truth is somewhere in between, Scappi's kitchen functioning on a mix of now-medieval humourism and his own empirical knowledge and interests.

In general, Scappi has a lot of expertise regarding meat safety and ideas of hygiene, even if this knowledge predates many given medical facts that are common in the contemporary world. In his opening "discourse," Scappi dedicates several distinct sections to the proper handling and storage of game fowl, domestic fowl, quadrupeds, small game, and farm animals, each wildly distinct in the methods and timings that Scappi recommends.[74] While some animals like the aforementioned capon must be cooked immediately after killing, cranes and wild ducks could be kept for a whole fortnight in ideal climates.[75] Like the individual nature of Albala's Early Modern diet, each major ingredient like a cut or specific type of meat required individual care and treatment. Professional cooking before modernity required a lifelong dedication to memorization that written text could only do so much to supplement when it came time to preparing another massive feast. Navigating a complex set of interactions between seasonal changes, butchering expertise, and Early Modern medical knowledge, Scappi displays an impressive knowledge of preservation techniques as well as first-hand experience with spoiled and contaminated foods, a crucial set of skills that continuously made cooks more and more valuable to medieval and Early Modern elites with ever-increasing access to a new global network of commodities.

Scappi's primary choice of convalescent meat is capon, or castrated male chicken.[76] Chicken, beef, goat, and sheep all appear in various forms, as well as fish and other fowl. Castrated male animals like the afore-mentioned capon as well as wether, along with young animals like veal and goat-

[74] Scappi, *Opera of Bartolomeo Scappi*, 105-22.
[75] Scappi, *Opera dell'arte* (Pelagolo), f.5v, f.6r-f.8v.
[76] Scappi, *Opera dell'arte* (Pelagolo), f.276v-f.277v.

kids, were favored over other types of meat.[77] Scappi features a diverse selection of cuts of meat, so it is not possible to discern any of his preferences from the text. As a rule, all types of offal feature throughout the section.

Outside of his broad range of ingredients, Scappi's convalescent food also has a significant range in terms of form. Soups, stews, porridges form a divide between the liquid elements of "potions," beverages, and pottages and the comparatively solid class of cooked meats, confections, and jellies.[78] Unexpected ingredients aside, the fundamental logic behind some of Scappi's convalescent cuisine makes sense when one considers the external sensitivity of the ill to factors like changes in pressure (tactile contact) and temperature. Soft foods with mild flavors are inoffensive by their nature due to a lack or at least minimization of interacting ingredients and long, low-heat-intensive methods of preparation, and are therefore less likely to upset the sick than most other foods. This assertion holds even under the weight of Albala's idea of medieval and Early Modern diets as strictly individual affairs, as one could base such an idea in observed, empirical data.

What of the spiced, flavorful dishes in Book VI that seem to contradict this? The simple answer to that is Scappi is following two systems of logic simultaneously: empirical and textual, experienced and taught. The humoristic body system believed that throughout most of the medieval and Early Modern eras in Europe was essential to the physician and therefore to Scappi, but the chef had a responsibility to also learn from his own experience the needs of the convalescent. Scappi's basis in the medical world was most likely through book-learning or direct tutelage as an apprentice, but *Opera* demonstrates that the chef cannot solely rely on the instruction of the physician. It is necessary for the cook of an elite household to be proactive, to be able to act *all'improvista*, and balance the demands of the day's belief with the practical concerns of cooking and eating.

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[77] Scappi, *Opera dell'arte* (Pelagolo), f.279r, f.289r.
[78] Scappi, *Opera dell'arte* (Pelagolo), f.305v-f.308v.

Looking at events contemporaneous to *Opera* and Scappi, more specific examples of food being important to health in Early Modern Italy can prove useful. In two separate instances, Medici majordomo Pier Francesco Riccio is involved with correspondences about sick men and their care. The first involves the illness of a ship captain in 1539 and the second Cosimo de' Medici's illness at Castello in 1544, the interesting part of both letters being the sick mens' consumption of "pollo pesto" or pesto chicken.[79] Pesto chicken is a prime example of a convalescent food that both challenges and adheres to modern expectations, with it containing a distinctive and unavoidable flavor while also providing a light and inoffensive form of protein.

Riccio's letter about Cosimo's illness gives further details that align with elements of Scappi's view of health in *Opera*, the young duke choosing to eat grapes and figs due to their "corruptibility."[80] There seems to be some calculation in Cosimo's mind that the fruits will counteract any possible negative effects of the punchy pesto paste, thereby allowing him to have these ingredients together instead of eating nothing and further weakening. In these complex analyses that measure the strength of substances like pesto sauce against fresh fruit, the Renaissance metric of diet and health can be plainly seen as an individual struggle, and one that justified the expense of a great chef and adequate cooking materials in addition to the services of a physician.

We can thus observe *Opera* as evidence of the chef's importance not only in supporting but even directly consulting with their patron's physician. The chef exercised control their patron's individual, qualitative "diet," as defined

[79] Lorenzo di Andrea Pagni to Pier Francesco Riccio, July 31, 1539, 13 recto, vol. 1170a, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy; Lorenzo di Andrea Pagni to Pier Francesco Riccio, October 1, 1544, 253 recto, vol. 1171, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

[80] Lorenzo di Andrea Pagni to Pier Francesco Riccio, October 1, 1544, 253 recto, vol. 1171, Mediceo del Principato Collection, Archivio di Stato di Firenze, Florence, Italy.

by medieval and Early Modern terms. *Opera*'s medical text, and the ideas about health that Scappi presents, demonstrates that by the Early Modern period, the chef had become a multi-faceted, skilled position that operated between social classes, physical knowledge, and artistic license.

The Chef's Other Roles

While not central to this article in detail, analysis of other aspects of the chef's multi-purpose role is necessary to give context to the medical role of cookery. As a political operative, a tastemaker, and a cook, the model Scappian chef would have been involved in every level of sixteenth-century Italian court life.

Scappi believed that the chef "should do as a wise Architect," laying out a firm plan that would prepare them for success in creating great and powerful works.[81] It is a view that tends towards the careful cultivation of talent and ambition. To Scappi, planning and long-term thinking are what transform the good cook into a great chef. His use of architecture as a metaphor, something weighty and consequential, to last the test of time—further speaks to his conviction that the chef is an artist and a professional whose own desires and ideas were just as important as those of any other skilled and specialized profession (if not more so). The firm foundations of Scappian cuisine lies in the ability of the practitioner to communicate an idea, through food, on behalf of their patron. This relates primarily to the political and cooking aspects of the chef.

Regarding the cook, the transmission of cookery knowledge and preservation of culinary heritage was a key interest of chefs for Scappi. In framing the first book of *Opera* as a dialogue between himself and his apprentice Giovanni, Scappi demonstrated the importance of textual exchange in the training of cooks and the development of

[81] Scappi, *Opera of Bartolomeo Scappi*, 99.

the profession over generations.[82] Neither he nor *Opera* existed in a cultural vacuum. In writing *Opera*, Scappi was contributing to a long tradition of classical and medieval texts focusing on cuisine, medicine, and even the natural world. During the Renaissance, Italian chefs like Scappi would have had an extensive historical record of regional cuisines available to him. These examples exist among a variety of specialized culinary and service texts on everything from silverware to pastry, some of which reference each other directly. In their overlapping duties, the relationship then between a chef like Scappi and a steward like Reinoso was an especially intimate and important one within the Early Modern Italian household—revealed by the respectful and sometimes warm language Scappi uses in his multiple mentions of the papal steward.[83]

Scappi saw the chef as a synthesizer of edible materials, someone who could take the sum total of known usable matters, and, out of this complexity, create exquisite, appetizing delicacies. Thus, we see Scappi in his final role as the gourmet or "tastemaker." The Scappian chef must be practical enough to handle household accounts but imaginative enough to create sheer delight out of ordinary ingredients. This was a truth that linked elite Renaissance cooks like Scappi directly to the agricultural consequences of the colonization of the Americas and the Columbian Exchange during Europe's "Age of Discovery." New infusions into European palates and the interest cooks had in cultivating new tastes demanded that they be learned (at least to some degree), financially savvy, hardworking, and curious. These traits are all on display in Scappi's *Opera*.

Notable New world contributions to Scappi's palate include fowl like Turkey—"Gallo d'India"— Muscovy duck, as well as guinea pig.[84] Spices formed the crown jewels of Scappi's profession, and a patron such as the pope enabled him to make full use of them in every possible context.

[82] Scappi, *Opera dell'arte* (Pelagolo), f.1r.
[83] Scappi, *Opera dell'arte* (Pelagolo), v.
[84] Scappi, *Opera of Bartolomeo Scappi*, 59, 183-84, 714-15.

Cinnamon, grains of paradise, cloves, and saffron appear multiple times in various contexts throughout Scappi's *Opera* despite their exorbitant cost and difficulty in sourcing, evidencing both the extremes of wealth available to the Catholic Church throughout much of the fifteenth and sixteenth centuries and the desire of the Church to reflect that wealth through feasts and daily menu selection.

Though this may be a difficult point to assert due to a tremendous lack of clear evidence, it is clear that continuous development of culinary possibilities using American products for European consumers enabled New World commodities to establish themselves as essential to European markets. While not present in *Opera*, tomatoes, potatoes, maize, and many other American products would become staple foods and cultural touchstones throughout Europe, burrowing their way to heavily influence even regional and local cultural traditions. Chefs like Scappi helped these new commodities find niches in existing European culinary traditions and so doing created an entirely new culinary culture that would come to integrate both Old and New Worlds.

Concluding remarks

In analyzing Scappi as physician in *Opera*, the intent of this paper was to show how the cook used text to preserve the health of their clients through the medium of food in Early Modern Italy. This was achieved while establishing *Opera* as an evolutionary link in a culinary tradition that also includes classical and medieval texts like *Apicius* and *De honesta voluptate*. Furthermore, I wanted to demonstrate Scappi's role as being revolutionary for the evolution of the Early Modern, elite European chef from the medieval "master cook." Firstly, through analysis of *Opera*'s Books IV and VI, the Scappian chef was found to be integral to supporting the health of their patrons and took both active and passive roles in this pursuit. These arguments were substantiated by *Opera*, other Italian cookbooks, and Florentine and Roman epistolary sources. Scappi as a chef synthesized ancient

culinary traditions and resources with modern techniques, ingredients, and expectations, and so doing changed the boundaries and social role of an entire profession. While these developments are more sensationally and perhaps naturally applied to matters of taste making, political spectacle, and the techniques of cookery, the medical role of the Early Modern cook both in elite households and oft-neglected domestic settings is one that Scappi and his contemporaries put great effort in proliferating through text and acts.

While the medical role of cookery has changed and further specialized into separate disciplines since Scappi's apogee, the function of the cook as a physician has maintained a certain relevance in a present era obsessed with quick-fix diet plans, a sensationalist media ecosystem formed out of condemning and praising certain foods for their health benefits or lack thereof, and continuing issues surrounding access to safe and nutritious sources of food and water globally.

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A Power in the Land
The First Transcontinental Railroad and the Second American System

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In May of 1869, William Tecumseh Sherman sent a congratulatory telegram to Grenville Dodge. Sherman proclaimed, "In common with millions I sat and heard the mystic taps of the telegraphic battery and heard the nailing of the last spike in the great Pacific road."[2] He praised Dodge and others who "fought this glorious national problem in spite of deserts, storms, Indians, and the doubts of the incredulous."[3] General Sherman was now head of the U.S. Army, but he always held an interest in the railroad enterprise. Dodge, Chief Engineer of the Union Pacific Railroad, had served under Sherman in the Civil War. Sherman and Dodge stayed in touch throughout the

[1] *Author's note:* This work is an adapted version of a Senior Independent Study Thesis submitted to the Department of History at The College of Wooster.

[2] Grenville Dodge, *How We Built the Union Pacific Railway, and Other Railway Papers and Addresses* (Government Printing Office, 1910), 44.

[3] Dodge, *How We Built the Union Pacific*, 44.

railroad's construction. Their friendship grew as the railroad stretched westward.[4]

Sherman and Dodge were part of a class of "railroad men" that reached across the public-private divide to build the nation. They viewed westward expansion as the next phase of the Union's consolidation. Republicans in government had a vision for the West, and railroad men paved it for them.[5] The rise of railroad companies occurred beside the growth of the state, and railroad men were the political mediators. The railroad was the main facilitator in a nation committed to building—rails, spikes, bunkhouses, wagons, engines, and even towns. [6] Railroad men tied together a nation that was being reborn.

In recent years, scholars have started to reexamine mid-nineteenth century America, especially the expansion of its political economy. One group of scholars, led by Elliot West, has argued that westward expansion was part of a larger Republican agenda. This "Greater Reconstruction" was an attempt by the federal government to establish societies in the post-Civil War South and West modeled on the

[4] Stephen E. Ambrose, *Nothing Like It in the World: The Men Who Built the Transcontinental Railroad 1863-1869* (Simon and Schuster, 2000), 367-371; Manu Karuka, *Empire's Tracks: Indigenous Nations, Chinese Workers, and the Transcontinental Railroad* (University of California Press, 2019), 69-79; Dodge, *How We Built the Union Pacific*, 44-45.

[5] Heather C. Richardson, *The Greatest Nation of the Earth: Republican Economic Policies During the Civil War* (Harvard University Press, 1997), 170-176; Eric Foner, *Free Soil, Free Labor, Free Men: The Ideology of the Republican Party Before the Civil War* (Oxford University Press, 1995), 27-30, 36-38; Richard White, *The Republic for Which It Stands: The United States During Reconstruction and the Gilded Age, 1865-1896* (Oxford University Press, 2017), 19-22, 56-59.

[6] White, *The Republic for Which It Stands*, 103-135; Ambrose, *Nothing Like It in the World*, 367-371; John C. Hudson, *Plains Country Towns* (University of Minnesota Press, 1981), 5-16; William Cronon, *Nature's Metropolis: Chicago and the Great West* (W. W. Norton, 1991), 25-26, 41-46.

industrialized North.[7] A railroad to the Pacific Ocean was crucial to this Republican project.[8]

The following article outlines the political actors and relationships that produced the first transcontinental railroad and the New West. Personal accounts, railway papers, and congressional testimony demonstrate how the public and private sectors intertwined to build the railroad. In fact, railroad men collaborated with Republican politicians who were willing to give them generous subsidies.[9] State-building during the Civil War provided the public and private sectors with financial and technological systems capable of laying track across the continent.[10] State power combined with the reach of the railroads to impose a new landscape on the Great Plains. The federal government used large land grants and the U.S. Army to clear Native Americans from their homelands.[11] Then, railroad companies laid track as they sold their public lands, enticed migrants to the Plains, and designed towns to produce profits. In the end, political corruption reinforced railroad companies' hold on government finance as the infrastructure they created disrupted the western environment.[12]

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[7] Several scholars have analyzed historical developments in the West through the concept of "Greater Reconstruction." See Elliot West, "Reconstruction in the West," *The Journal of the Civil War Era*, (March 2017); Stacey L. Smith, "Beyond North and South: Putting the West in the Civil War and Reconstruction," *Journal of the Civil War Era* 6, no. 4 (2016): 566-574; White, *The Republic for Which It Stands*, 103-135.

[8] Richardson, *The Greatest Nation of the Earth*, 170-176.

[9] David Haward Bain, *Empire Express: Building the First Transcontinental Railroad* (Viking, 1999), 106-116, 178-180; Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (W.W. Norton & Company, 2011), 507-517.

[10] James M. McPherson, *Battle Cry of Freedom: The Civil War Era* (Oxford University Press, 1988), 816-819, 859; Ambrose, *Nothing Like It in the World*, 17-22.

[11] White, *The Republic for Which It Stands*, 103-135; Karuka, *Empire's Tracks*, 60-103.

[12] White, *The Republic for Which It Stands*, 117-135; White, *Railroaded*, 455-517.

Railroad men built the first transcontinental railroad by redefining the political relationships between the state and private corporations. Ambitious men belonging to railroad companies, the government, and the military used their political connections to build the railroad and settle western lands.[13] These ties between railroad men constituted a second American System of economic development. The first coordinated the government's involvement in the market economy and internal improvements.[14] In the new American System, relationships between people in power across the public-private divide determined the nature of westward expansion. Financiers like Thomas Durant and Collis Huntington gave politicians monetary rewards to influence railroad legislation. Chief Engineer Grenville Dodge used his relationships with army generals to organize railroad construction and the occupation of Indigenous lands.[15] Their efforts reconfigured the landscape of the Great Plains so that it could function as the geography for a continental economy.[16]

The transcontinental railroad both reflected and shaped the American political system. Building the railroad functioned as a tool for Republican reimagination of the West.[17] However, government funding lured several ambitious men who seized control of the project. Railroad men reordered political power through their links between government and business. They used their political connections to both build the railroad and bolster their

[13] Bain, *Empire Express,* 106-116, 178-180, 190-191, 253-265, 506-518, 711.

[14] Steven Hahn, *A Nation Without Borders: The United States and Its World in an Age of Civil Wars, 1830-1910* (Penguin, 2016), 1-8, 83-89, 111-113; McPherson, *Battle Cry of Freedom*, 9-31.

[15] Bain, *Empire Express,* 106-116, 178-180, 190-191, 506-518; Dodge, *How We Built the Union Pacific*, 12-17.

[16] West, "Reconstruction in the West;" Smith, "Beyond North and South," 566-574; White, *The Republic for Which It Stands*, 103-135.

[17] White, *The Republic for Which It Stands*, 19-22, 56-59, 103-135.

personal status.[18] Public-private integration carried over to the politics of space as well. The federal government's expansion during and after the Civil War empowered railroad men to transform the western landscape. Financiers and engineers created new methods of financing, managing, and building on a monumental scale.[19]

The first wave of histories on the transcontinental railroads focused on railroad regulation, political corruption, and labor. Historians' work included studies of government regulation of corporate organization, accounting, and labor conditions. [20] This more progressive phase, lasting most of the twentieth century, likely stemmed from antimonopoly resentment against large railroad corporations. The Crédit Mobilier scandal of the early 1870s smeared the reputations of railroad companies and politicians. In addition, the Supreme Court's decision in *Santa Clara County v. Southern Pacific Railroad Company* (1886) established the notion of corporate personhood, which became a sign of corporate power that loomed in the minds of contemporaries for decades.[21]

Recent historiography of the railroads and the West has been concerned with the relationship between the state and corporations, land and resource management, and railroads' social and environmental impacts. Through these areas of study, railroad historiography has started to bridge with the

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[18] Bain, *Empire Express*, 106-116, 167-173, 178-180, 195-202, 430-431.

[19] Bain, *Empire Express*, 157-163, 253-254; Dodge, *How We Built the Union Pacific*, 9-12; Hahn, *A Nation Without Borders*, 83-89, 111-113; Karuka, *Empire's Tracks*, 40-45; McPherson, *Battle Cry of Freedom*, 286, 299, 514-515, 675; White, *Railroaded*, 2-9; Alfred D. Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Harvard University Press, 1977), 51-53, 77-80.

[20] Sean M. Kammer, "Railroad Land Grants in an Incongruous Legal System: Corporate Subsidies, Bureaucratic Governance, and Legal Conflict in the United States, 1850–1903," *Law and History Review* 35, no. 2 (2017): 391-398.

[21] White, *Railroaded*, xxi-xxxiv; White, *The Republic for Which It Stands*, 255-257, 818-822.

larger field of the "new western history."[22] Richard White studies the political and financial undercurrents of building the transcontinentals. He directs special attention to the financial mechanisms that railroad men developed to enrich themselves.[23] Moreover, Manu Karuka argues that the first transcontinental railroad embodied "railroad colonialism."[24] Karuka claims that this was a system in which economic and military apparatuses fused together to displace Indigenous tribes and lay the tracks for an American empire.[25] William Cronon also engages with railroads in that they built the economic networks that connected the American interior with eastern cities.[26]

The concept of the Second American System is a synthesis of the insights of previous historians. It shows the transcontinental railroad as a force of politics and empire, connection and dislocation.[27] Some railroad historians debate over new questions like whether the transcontinental railroads were built ahead of demand.[28] In the context of the new American System, that particular question is of less concern than the characteristics that it imposed on the western landscape. In the West, the government began a process that they paid the railroads to finish. Railroad men like Sherman and Dodge were the key intermediaries. Federal land grants, military occupation, and town development reconstructed the Great Plains into an agricultural boom land that railroads linked together.[29] And to produce that

[22] Smith, "Beyond North and South," 566-567, 571-574.
[23] White, *Railroaded*, xxi-xxxiv, 507-517.
[24] Karuka, *Empire's Tracks*, xiv.
[25] Karuka, *Empire's Tracks*, xi-xv, 40-45, 66-73, 140-145, 168, 180.
[26] Cronon, *Nature's Metropolis*, 5-19, 25-26, 41-46, 80-81, 92-93, 381-385.
[27] Smith, "Beyond North and South," 566-574; White, *The Republic for Which It Stands*, 103-135.
[28] White, *Railroaded*, xxiii-xxvii; Xavier Duran, "The First U.S. Transcontinental Railroad: Expected Profits and Government Intervention," *The Journal of Economic History* 73, no. 1 (2013): 178-179.
[29] Bain, *Empire Express,* 106-116, 178-180, 190-191, 253-265, 506-518, 711; Karuka, *Empire's Tracks*, xi-xiv, 40-45, 60-69, 180.

environmental landscape, public officials and private businessmen generated political relationships that oversaw a continental empire. Railroad men shaped the state to build the nation.

The Rules of Railroad Men

On a warm August day in 1859, Abraham Lincoln met with Grenville Dodge, a young railroad engineer at the time. A mutual acquaintance had told Lincoln that Dodge knew more about railroads than any "two men in the country."[30] Dodge had just returned from west of the Missouri River to explore the viability of a Pacific railroad. This caught Lincoln's attention. He was in town on official business, but railroads were his passion. Lincoln sat down next to Dodge on the stoop of the Pacific House, a Council Bluffs, Iowa, hotel. After a moment of studying him, Lincoln turned to Dodge and asked, "What's the best route for a Pacific railroad to the West?" He replied that it was "from this town out the Platte Valley," a great thoroughfare of Nebraska.[31] Lincoln continued to ply Dodge with questions.[32]

Dodge explained to the politician that the Platte Valley route to the Pacific was the most logical way of building a transcontinental railroad. Due west along the forty-second parallel, the track could follow the same elevation all the way from the Missouri River to the Rocky Mountains. It was 600 miles up a valley without an incline of more than fifteen feet. Further west, the lowest point of the Rockies formed a natural passageway through which the railroad could go. [33] Such geography meant construction could be both cheap and efficient. It was like something out of a railroad engineer's dreams. Now all someone had to do was go build it.

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[30] Ambrose, *Nothing Like It in the* World, 23-24.
[31] Ambrose, *Nothing Like It in the World*, 23-24.
[32] Ambrose, *Nothing Like It in the World*, 23-41; Bain, *Empire Express*, 157-164.
[33] Bain, *Empire Express*, 158; Ambrose, *Nothing Like It in the World*, 23-26.

Grenville Dodge had both the technical and political skills necessary to build the railroad. At twenty, he graduated from a private military college with an engineering degree. After, Dodge worked as a rodman, surveyor, and engineer for the growing railroads of the Midwest. His time with railroads like the Mississippi and Missouri (M&M) also put him in touch with Iowa Republican Party interests. In 1860, Dodge lobbied to reelect Samuel Curtis, chairman of the House Committee on Pacific Railroads, and to sway the Hawkeye state for Abraham Lincoln.[34]

Abraham Lincoln was a friend of railroads. Lincoln believed that "no other improvement…can equal in utility the [railroad]."[35] As a lawyer, he represented several key midwestern railroad interests, including the Illinois Central Railroad, the largest rail system in the world at the time.[36] By the time of his meeting with Grenville Dodge, Lincoln was running for president. It would be under his presidency that the great national project of a Pacific railroad started.[37]

Lincoln and Dodge met again in 1863. President Lincoln summoned Dodge, now a colonel of an Iowa regiment, to the White House. Four summers earlier, Dodge had convinced Lincoln that the Platte Valley was the best place through which to build the railroad. Now Lincoln wanted Dodge's expert opinion on what would spur the project forward. Dodge knew that private businessmen alone would not be able to build it. He told the president that the government should fund its construction. Lincoln promised that "the Government would give the project all possible aid and support."[38] After the Civil War, Dodge would go on to take his place as Chief Engineer of the Union Pacific Railroad.[39]

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[34] Bain, *Empire Express*, 157-158.
[35] Ambrose, *Nothing Like It in the World*, 26-27.
[36] Ambrose, *Nothing Like It in the World*, 26-30.
[37] Bain, *Empire Express*, 115-116, 158-164, 178-180.
[38] Bain, *Empire Express*, 160-161.
[39] Bain, *Empire Express*, 158-164.

The dream of building a Pacific railroad started decades earlier. Since the country's founding, Americans had imperial notions about the nation being a continental empire. Building that empire occurred alongside the intensification of the market economy in the early nineteenth century. Turnpikes, canals, and railroads, funded by both public and private capital, started to construct an infrastructure upon which an "empire of liberty" could rest.[40] In 1834, only 762 miles of railroad track crisscrossed the nation. Twenty years later, the total track numbered 15,675 miles.[41] Merchants, landowners, and politicians planned to incorporate the ample resources of the trans-Mississippi West into the American economy. The annexation of new territories and the discovery of gold in the West raised a Pacific railroad's place on the national agenda. If a railroad to the Pacific coast was built, the East Coast would be connected to the markets of "the Far East."[42] Cargo and passengers would not have to travel by wagon, cut over land across Panama, or sail 18,000 miles around the tip of South America. With a transcontinental railroad, the trip between American factories and Chinese goods would be shortened from up to ten months to thirty days. Such a railroad would finally secure Americans the wealth of empire.[43]

Realizing the national dream of building a Pacific railroad fell to ambitious men who wanted to fulfill their private ambitions in service of public projects. "Railroad men"—financiers, engineers, surveyors, generals, and politicians—participated in the railroad's construction for their own personal ends.[44] For many railroad men, like Thomas Durant and Collis Huntington, their ambition was to augment their

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[40] Hahn, *A Nation Without Borders*, 83-89, 111-122; Ambrose, *Nothing Like It in the World*, 18.

[41] Ambrose, *Nothing Like It in the World*, 24-34, 51-53.

[42] Hahn, *A Nation Without Borders*, 22-26, 241-243; Henry Nash Smith, *Virgin Land: The American West as Symbol and Myth* (Harvard University Press, 1978), 3-18.

[43] Bain, *Empire Express*, 3-4, 10-15, 31-36.

[44] Ambrose, *Nothing Like It in the World*, 17-22; White, *Railroaded*, xxi-xxxiv, 17-26.

wealth and power. For others, like Ted Judah, it was to be part of the group that finally saw it built. The ambitions of Grenville Dodge, the quintessential railroad man, crossed both of these lines.[45]

There were rules to the way railroad men did business. Railroad men in both government and business maintained their relationships with each other. Political "friendships" between railroad financiers and governing politicians were responsible for much of the favorable legislation to railroad companies.[46] This is especially true for the financial mechanisms in place for building the railroad. The federal government used what historian Richard White has called "taxless finance" to see it built.[47] Congress, controlled by Republicans devoted to internal improvements, used land grants and federal credit to encourage private companies to develop the nation's infrastructure.[48] Railroad financiers were particularly receptive to this system as they had little experience and wished to acquire the highest possible reward for the lowest risk.[49] The flow of government and railroad bonds proved to be a potent enticement for ambitious businessmen and politicians. Through the relationships they formed, railroad men shaped a political system that lasted a lot longer than any of the track they laid. Railroad men wrote the rulebook for how the public and private sectors could be intertwined.

Before the project could be funded, railroad men first had to find the route for a transcontinental railroad. In the 1840s, Asa Whitney, a short Connecticut businessman, made a proposal for the railroad to extend from Lake Michigan to the Pacific Ocean. Before reaching the Rocky Mountains,

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[45] Bain, *Empire Express,* 67-94, 115-117, 157-164, 168-169, 190-191, 711.

[46] White, *Railroaded*, 3-26.

[47] White, *The Republic for Which It Stands*, 117.

[48] White, *The Republic for Which It Stands*, 117-120.

[49] D.L. Phillips, *Letters from California: Its Mountains, Valleys, Plains, Lakes, Rivers, Climate and Productions. Also Its Railroads, Cities, Towns, and People, As Seen in 1876.* (Illinois State Journal Co., 1877), 52-54.

Whitney's railroad would be built through the Platte Valley of Nebraska, which he called the "thoroughfare of the world."[50] Grenville Dodge's surveys in the 1850s had also pointed to the Platte route. Another railroad engineer named Theodore Judah agreed too. However, the route for the transcontinental's western section was still unclear. Judah advocated for a western terminus somewhere in the Sacramento Valley of California.[51]

Ted Judah was a diligent and determined railroad man. After his education at the Troy School of Technology in New York, he began his career as a surveyor and railroad engineer across the United States. He earned renown as the man to build the first railroad in the trans-Missouri West. Judah's skills were extremely valuable to the transcontinental enterprise.[52] In 1857, Judah published his *Practical Plan* for surveying and building a Pacific railroad. He included construction plans, cost estimates, and geographical reports. Judah argued that private capitalists needed to see a thorough survey before putting any money down.[53] Surveys of the Sierra Nevada Mountains were especially integral to launching the project. This mountain range, made of solid granite, would be the most difficult piece of terrain to build a transcontinental across. If Judah managed to find a viable way, then it was just a matter of time and money until it was built.[54]

Judah set out to find a practical route through the Sierra Nevada. He arrived in California in the summer of 1860. He went into the mountains, planning to come down with maps, profiles, and estimates. Judah examined the many emigrant routes before the snow completely covered the mountains. During his expedition, he noted the routes' inclines, the depths of their canyons, and the number of bridges and

[50] Bain, *Empire Express*, 13-19, 25-33, 37-45.
[51] Bain, *Empire Express*, 51-53, 158; Smith, *Virgin Land*, 19-34.
[52] Bain, *Empire Express*, 51-62; Ambrose, *Nothing Like It in the World*, 55-62.
[53] Theodore Judah, "A Practical Plan for Building the Pacific Railroad," The Museum of the City of San Francisco, 1857.
[54] Bain, Empire Express, 69-79.

tunnels required to pass through them.[55] When an entrepreneur from the muddy California village of Dutch Flat heard about Judah's explorations, he sent him a letter. His name was Daniel W. Strong, but everyone called him "Doc Strong." Days later, the two men were riding to Donner Summit. Once they reached the top, Judah was able to take in the landscape. Below them stood Donner Lake, and the Truckee River canyon lay beyond. This canyon drained Lake Tahoe, forming a corridor through the mountains and into the Humboldt Plains of Nevada. Judah knew then that they had found the route through the Sierra Nevada.[56]

Although the Dutch Flat-Donner Pass route was the most efficient and economic course, the railroad would still have to be built over rough landscapes and steep climbs. Judah argued that that the railroad would have to climb 102 miles from Sacramento to Donner Summit—at an elevation of 6,690 feet—then descend 13 miles to the California state line. No place on the route would require a gradient steeper than one hundred feet per mile, or an incline of two percent.[57] This was quite feasible for railroaders in the 1860s. Judah himself was familiar with the current technology and how engines could handle heavy grades. When speaking to prospective investors, Judah surely marketed the financial implications. There was money to be made in this endeavor: the more difficult the terrain, the more the government would pay.[58]

By the autumn of 1860, Ted Judah started to organize the Central Pacific Railway Company. Over several months, Judah and Strong secured several investors. Four Sacramento businessmen rounded out a board of directors: Collis Huntington, Mark Hopkins, Leland Stanford, and Charles Crocker. Huntington was a short and dogged owner of a hardware store. Hopkins was a slim and shrewd

[55] Bain, *Empire Express*, 77-79.
[56] Bain, *Empire Express*, 81-83.
[57] Bain, *Empire Express*, 83.
[58] Bain, *Empire Express*, 81-84.

bookkeeper and Huntington's partner in the hardware business. Stanford was a blunt lawyer who grew disinterested with the law and became a wholesale grocer. Crocker was a tall and sturdy owner of a dry goods emporium.[59] It was through the "Big Four" that Judah's route finally had a chance. To start, they each paid $1,500 towards the down payment of a subscription worth $75,000. Their money funded Judah's surveys and the lobbying bound to happen in the murky halls of Washington. Moving forward, Huntington shouldered much of the Central Pacific's responsibilities.[60]

Collis Huntington used his skills as a self-made salesman and power broker to get the railroad funded and built. Huntington was born in Poverty Hollow in the Litchfield Hills of Connecticut. He received little schooling, but he excelled in mathematics, history, and geography—all he needed to make his way. He made most of his money through the California Gold Rush of the late 1840s and early 1850s. Instead of giving up his store and prospecting in the Sierras, Huntington mined the miners through his systematic selling of pans, picks, shovels, and socks.[61] When he joined the Central Pacific in 1860, Huntington was ready to blend his two passions: money and politics. He was well-equipped to steer the Central Pacific through the political and financial backwater of railroading in the 1860s. Like other financiers, Huntington developed relationships to get as much money out of the Republican Congress as it was willing to give. In reality, Republicans and railroad men used each other to realize their respective dreams.[62]

Free land was the foundation on which Republicans legislated a new nation. The philosophy of Abraham Lincoln and other Republicans built upon American Whig traditions

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[59] Bain, *Empire Express*, 85-94.

[60] Bain, *Empire Express*, 94-96, 767; Ambrose, *Nothing Like It in the World*, 62-69.

[61] White, *The Republic for Which It Stands*, 225; Bain, *Empire Express*, 87-91; Ambrose, *Nothing Like It in the World*, 47-51.

[62] Bain, *Empire Express*, 85-96, 106-116, 134-147; White, *The Republic for Which It Stands*, 117-120.

which supported federal subsidies for internal improvements like railroads.[63] Congress passed the Homestead Act (1862), which provided free farms to anyone that was willing to work the land, and the Morill Land Grant Act (1862), which formed a public university system. These land-grant acts advanced American economic expansion. Moreover, it was part of the growing trend of the federal government affecting the use of public lands in the national economy. [64] In his Annual Message of 1862, President Lincoln addressed how the continent's "great interior region" could be further developed for the betterment of one, united, free American people.[65] Republicans believed that this economic expansion would serve as a positive catalyst for the entire nation.[66]

Free labor was at the core of Republican philosophy that drove government policy in the 1860s. Republicans viewed workers in farms and factories across the North as the new face of the nation. They symbolized what Republicans believed was America's turn away from the South's "Slave Power."[67] Before the Civil War, more than two-thirds of the presidents since the start of the republic were from one of the slaveholding states that joined the Confederacy. Southerners would still hold power, but the Civil War initiated a significant transition. The war helped to shift this concentration of political power to the North, specifically into the hands of men from the Midwest and New England—men like Abraham Lincoln and Grenville Dodge.[68]

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[63] McPherson, *Battle Cry of Freedom*, 21-46; Foner, *Free Soil, Free Labor,* 15-20, 27-30.

[64] White, *The Republic for Which It Stands*, 117-120.

[65] Abraham Lincoln, "Message of the President," Transcript of speech delivered at the US Capitol, December 1, 1862.

[66] Richardson, *The Greatest Nation of the Earth*, 170-176; Foner, *Free Soil, Free Labor*, 15-20, 27-30.

[67] Foner, *Free Soil, Free Labor,* 9-10, 15-16; McPherson, *Battle Cry of Freedom*, 51.

[68] McPherson, *Battle Cry of Freedom*, 47-64, 859-861; Bain, *Empire Express*, 153-164; White, *Railroaded*, 32-33.

Republicans wanted to replicate across the country what they saw in the antebellum North. This included independent, small-scale farming communities that made up a regional economy. These towns also featured a lack of wealth disparity between their homeowners. One of the best examples of this "homogeneous citizenry" was the hometown of the Rail Splitter himself: Springfield, Illinois. The hope was to plant towns like Lincoln's across the country, with a model for full civil, political, and social equality for white men.[69] They believed that the West could be reconstructed on the same ideal social order in which all men were equal through the promise of both geographic and social mobility. To build this kind of West, the nation needed to develop an infrastructure that could initiate Republican transformation of the landscape.[70]

A transcontinental railroad would be the centerpiece of Republican reconstruction. It would allow easy transportation of troops and supplies across the country, foster belief in the Union in California, settle the Great Plains, and facilitate access to western gold.[71] The Republican Party platform of 1860 specifically called for the construction of a railroad to the Pacific Ocean. It declared that such a project was in the interest of the whole country and that the federal government should play a key role in its construction.[72] The railroad became a political reality between 1861 and 1862, when secession led to Republican control of Congress and a railroad bill could be presented as a military necessity.[73]

In early 1862, railroad men gathered in Washington, D.C., to see how much they could pull from the federal purse. That

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[69] White, *The Republic for Which It Stands*, 19-22.

[70] Foner, *Free Soil,* 27-30, 36-38; White, *The Republic for Which It Stands*, 56-59, 103-120.

[71] Richardson, *The Greatest Nation of the Earth*, 170-176; Ambrose, *Nothing Like It in the World*, 30-31; Hahn, *A Nation Without Borders*, 152, 241-243.

[72] "Republican Party Platform of 1860," The American Presidency Project.

[73] Richardson, *The Greatest Nation of the Earth*, 170-176.

winter, railroad committees in the House and Senate had begun their work on a new plan for a Pacific railroad. Congress planned to bestow bonds and land grants to railroad companies as payment for construction. Railroad companies used lobbying to secure their railroads' place in the congressional giveaway. Each railroad lobbyist had political connections, or "friendships." Financiers often gave railroad stock to congressmen for their support.[74] Two railroad lobbies, hailing from Iowa and Kansas, were most involved in the negotiations for the 1862 railroad bill. Both pushed for a central route across the Great Plains.[75]

Two different railroad interests backed the Iowa and Kansas lobbies. The Mississippi and Missouri (M&M) Railroad, led by Thomas Durant, was the driving force behind the Iowa lobby. The powerful Ohioan Thomas Ewing Jr. dominated the Leavenworth, Pawnee, and Western (LP&W) Railroad, the main vehicle for the Kansas lobby.[76] Both railroads had been chartered to lay track across their respective states, yet next to nothing had been completed by 1862. However, both companies belonged to growing states and had collected numerous friends to promote the Pacific railroad bill. The M&M had been shilling out land deeds and stocks to politicians for years, including Herbert Hoxie, the chairman of the Iowa Republican Party. The M&M also had ties with Iowa politician James Harlan, chairman of the Senate Committee on Public Lands and a close friend of President Lincoln. The LP&W had its share of friends, too. In the years prior, the LP&W had distributed $4 million worth of stock certificates to at least eight members of Congress.[77]

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[74] Bain, *Empire Express*, 105-108; White, *Railroaded*, 17-23.
[75] Bain, *Empire Express*, 105-108; Richardson, *The Greatest Nation of the Earth*, 175-176.
[76] Bain, *Empire Express*, 106-108.
[77] Bain, *Empire Express*, 106-115, 151-157; Richardson, *The Greatest Nation of the Earth*, 175-177.

Political battles between the railroad lobbies heated up as congressmen and senators drafted the legislation.[78] Eyeing the right to the entire western section, the Central Pacific aligned itself with the LP&W. In fact, Collis Huntington and Thomas Ewing met several times while legislators crafted the bill. The railroad committees even appointed Ted Judah as clerk. The Kansans and Californians put forward a bill that threatened the future of the Iowa and Chicago interests.[79] But by the spring of 1862, the M&M's Iowa allies mounted a campaign to spearhead the Pacific railroad's eastern section. On May 20, Senator Harlan threatened to move the bill to his committee—which would have effectively stalled the bill for the rest of the war. The Kansans and Californians panicked. The value of their stock certificates started to fall drastically. Judah then met with Harlan and the other Iowans to work out a deal. In the end, the Central Pacific still had the right to California, but now the M&M won the right to the entire main line of the Pacific railroad.[80]

Long-term political relationships gave the Iowa railroads their victory. The Iowa lobby, backed by significant midwestern railroads, represented a coalition of interests that spanned from Iowa through Chicago, New York, and Boston. The Kansas lobby had actually spent more on their "Railroad Congressmen," with investors from St. Louis, Kansas City, Pittsburgh, and Philadelphia.[81] However, the Iowa lobby built a coalition that had been paying their politicians for a longer period of time. For several years, Harlan himself had been caring for the interests of the M&M and its leader Thomas "Doc" Durant.[82]

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[78] "Journal of the Senate of the United States of America, 1789-1873," June 18, 1862.

[79] Bain, *Empire Express*, 90-96, 108-113.

[80] Bain, *Empire Express*, 108-115; Richardson, *The Greatest Nation of the Earth*, 175-187.

[81] Bain, *Empire Express*, 108.

[82] Bain, *Empire Express*, 105-115; Ambrose, *Nothing Like It in the World*, 19.

Durant would soon be known as "the first dictator of the railroad world."[83] He was a tall and brooding man with a knack for manipulation. In the 1850s, he made strides in the railroad business. First, he was a full partner in the Chicago and Rock Island Railroad, then he chartered the M&M in 1852. Ten years later, after the M&M's victory, Durant made plans to take hold of the company Congress contracted for the transcontinental's eastern section: the Union Pacific Railroad Company.[84]

Durant and Huntington maneuvered to hold the power in the two state-chartered railroad companies. Durant spent more than $2 million to illegally take control of the Union Pacific. His friends had the stock registered in their name, but he paid their subscription deposits of ten percent. As the leading investor with friends on the board, he was in control for quite some time.[85] Meanwhile, Huntington stacked the Central Pacific's board of directors in his favor. In July of 1863, the board elected two more men of Huntington's faction, and he consolidated control. The Big Four—Huntington, Hopkins, Stanford, and Crocker—all held considerable influence. Along with Crocker's brother, the railroad's attorney, each would eventually own twenty percent of the company. But Huntington would be the immovable force that kept the money flowing.[86]

With the Pacific Railway Acts of the 1860s, railroad men finally obtained the public funding necessary for their private ambitions. The massive federal aid to the railroad companies included $60 million in bonds (at least $1.2 billion in 2025) and twenty million acres of public lands (31,000 square miles, about the area of South Carolina).[87] Securing this was just the

[83] Bain, *Empire Express*, 151, 722.
[84] Bain, *Empire Express*, 147-148, 151-157.
[85] Bain, *Empire Express*, 147-148, 155-156 90-96, 127-130, 139-147, 155-156, 302-303, 705-710
[86] Bain, *Empire Express*, 90-96, 127-130, 139-147, 302-303, 705-710; Richardson, *The Greatest Nation of the Earth*, 182-184.
[87] Bain, *Empire Express*, 115-116, 178-180; Ian Webster, "CPI Inflation Calculator: $60,000,000 in 1864 → 2025." Although the

first step for railroad men finding ways to both build the railroad and grow their own wealth and influence.[88] However, their machinations did not make the transcontinental railroad solely a means through which to defraud the American people. Their seizure of the project was government sanctioned. The federal aid was as much an inducement to railroad men as it was a Republican investment in the reconstruction of the West.[89] It represented a social contract between the state and capital that heralded a convoluted era of western development in which nation-building occurred beside corruption and exploitation.

Railroad Land: Constructing the Landscape of the Great Plains

In 1865, American regeneration laid in the West as the Union's consolidation rested in the South. Republicans in the federal government believed in legislating their vision through a reconstruction of the entire country.[90] With the end of slavery, free labor and small farming communities would constitute the political economy of an egalitarian and advancing nation. Over the next decades, the government attempted to transplant the political, economic, and social institutions of the North into the landscapes of the South and West. For Republicans, the federal government's ownership of the "public domain" provided the space and capital for the nation's reconstruction in the West.[91] The state and private companies reimagined western lands to reflect a new reality: an agricultural economy of mass production, worked by settlers and linked by railroads.

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value from the bonds is likely higher, Ian Webster's financial analysis gives a comparison of the value of the loan to today.

[88] White, *Railroaded*, 9-11, 17-24.

[89] Bain, *Empire Express*, 105-116; White, *The Republic for Which It Stands*, 117-135.

[90] West, "Reconstruction in the West;" Smith, "Beyond North and South."

[91] White, *The Republic for Which It Stands*, 1-22, 103-135, 855-858.

Reconstruction in the West became an extension of the Civil War. It was a new front in the political struggle to bring outlying territories into the reinvigorated Union.[92] Although he was burdened with rebellion, President Lincoln worked with Congress to oversee western development. He envisioned the sale of public lands, the construction of infrastructure, and the cultivation of agriculture as national tools that would incorporate the interior region into the nation.[93] Lincoln also believed that the policy of confining Native Americans to reservations was necessary to ensure western lands "secure for the advancing settler."[94] Like returning the ex-Confederate states to the Union, Lincoln regarded the West as a platform for national rebirth.[95]

The Republican dream for the West conflicted with the way of life of Indigenous nations on the Great Plains. American expansion encroached onto the territory of Plains tribes that had lived there for centuries. These tribes included the Lakota, Cheyenne, Arapaho, Kiowa, and Comanche. The political economy of many Plains tribes was based on relationships, status, and expansion through hunting and trading alliances. At its core was the use of horses to follow and hunt bison, which provided food and clothing. Native modes of relationship with land influenced these social and political structures.[96] For many Native people, land was not something that can be sold; rather, their lives are connected with the land they live on.[97] Indigenous sovereignty faced growing interference from the westward expansion of white settlers who sought to settle western lands through the private ownership of property.[98]

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[92] Smith, "Beyond North and South," 566-576; Hahn, *A Nation Without* Borders, 193-198.
[93] Lincoln, "Message of the President."
[94] Hahn, *A Nation Without Borders*, 284.
[95] Hahn, *A Nation Without* Borders 280-285.
[96] Hahn, *A Nation Without Borders*, 15-26, 241-243.
[97] Cronon, *Nature's Metropolis*, 25-30.
[98] Karuka, *Empire's Tracks*, 60-69; Smith, "Beyond North and South," 566-576; White, *The Republic for Which It Stands*, 296-305.

Congress established federal authority over Native American lands on the Great Plains through treaties. Originally, the federal government treated Indigenous groups as semi-sovereign nations within the United States. However, several treaties, with conditions Indian leaders did not agree to, initiated increasing American domination.[99] With the Fort Laramie Treaty of 1851, the federal government claimed military authority over the potential hunting grounds of several Plains tribes, including the Lakota, Cheyenne, and Arapaho. The treaty also gave the government the right to build infrastructure like railroads and military forts through these lands. Over the next twenty years, aggressive westward expansion of white settlers further diminished Indigenous sovereignty. The Fort Laramie Treaty of 1868 promised the land north of the Platte River to the Lakota and other tribes in exchange for Nativ people stopping their attacks on railroad construction. But the government did not hold up its end of the bargain. More violence ensued. By 1871, Congress ended the treaty system altogether as the military continued to assert federal control over the West.[100]

Violence between whites and Natives became a core element of western reconstruction. One theater of this violence was Colorado. John Evans, the Republican governor and a director of the Union Pacific Railroad, believed that Denver could only be a hub for the transcontinental if he put a stop to Indian resistance. In early 1864, he manufactured a war between whites and Natives.[101] Unsubstantiated reports of an Indian uprising precipitated the dispatch of U.S. calvary units with orders to "kill

[99] Mark Hirsch, "1871: The End of Indian Treaty-Making," *NMAI Magazine*, 2014.

[100] Karuka, *Empire's Tracks*, 64-79; Bain, *Empire Express*, 185-186; Hahn, *A Nation Without Borders*, 280-285; Smith, "Beyond North and South," 574-576; White, *The Republic for Which It Stands*, 125, 127-132; "The Great Chief: Red Cloud Meets His White Brethren at Cooper Institute," *The New York Times*, June 17, 1870.

[101] Bain, *Empire Express*, 184-186.

Cheyennes wherever and whenever found."[102] Raiding and killing haunted the plains for months. By November of 1864, many tired and hungry tribal leaders capitulated to U.S. troops at Fort Lyon. After the Natives were brought to Sand Creek, Colonel Chivington and the Third Colorado Volunteers fired on 550 Southern Cheyenne and Arapaho, killing 150 people—mostly women, children, and elders.[103] The massacre initiated a war on the Central Plains between the U.S. Army and the Cheyenne and Arapaho nations. The war gave the federal government the opportunity to solidify its control over the West and to turn Indian lands over to white settlers.[104]

The transcontinental railroad existed as a form of settler colonialism on the Great Plains. The "public lands" that were so integral to its construction were the ancestral lands of several groups of Plains Indians. The railroad's construction across the Plains brought with it the displacement of Native peoples. [105] Treaties, land grants, and military violence transferred western lands from Indigenous nations to white settlers. Manu Karuka has defined this as "railroad colonialism."[106] In this process, the economic and military institutions of the state blended together. The state and railroad companies worked together to bring the resources of the western periphery to the markets of the eastern core.[107] The federal government paid the railroads to use Indigenous land to forge the continent into one economic unit.

As workers built the transcontinental railroad, the American state and railroad companies constructed a new landscape on the Great Plains by subsidizing, occupying, and reorganizing public lands.[108] Railroad men of the public and

[102] Bain, *Empire Express*, 186.
[103] Smith, "Beyond North and South," 574-576; Hahn, *A Nation Without Borders*, 280-285; Bain, *Empire Express*, 184-192; Karuka, *Empire's Tracks*, 132-136.
[104] White, *The Republic for Which It Stands*, 103-107.
[105] Hahn, *A Nation Without Borders*, 238-243, 280-285.
[106] Karuka, *Empire's Tracks*, xiv.
[107] Karuka, *Empire's Tracks*, xi-xiv, 40-45, 60-69, 180.
[108] Karuka, *Empire's Tracks*, 40-45, 69-79, 180.

private sectors engineered a political system that imposed a new spatial geography. First, the railroad companies used Congress and the military to provide funding and take Native land.[109] Then, as workers laid track, railroad companies surveyed and sold their lands to induce western settlement and create agricultural hubs in the interior.[110] Internal development in the United States meant laying the tracks for an empire across the North American continent.

Railroad men of the state and corporations operated the political system behind "railroad colonialism."[111] Grenville Dodge was the definitive example of a railroad man. He was a facilitator in both government and business—sometimes all at the same time. Dodge was a railroad engineer, military general, and congressman all within the same decade. He surveyed the railroad's route through the Platte Valley, led campaigns against Plains tribes, and managed the Union Pacific's surveying and construction. He was elected to Congress in Iowa while standing at the head of the Union Pacific in 1866.[112] His career demonstrates how porous the public-private divide was in an era in which railroad men used every resource and relationship to achieve both personal and national ambitions.

Large land grants served as the first stage for constructing the new West. Republicans in Congress granted millions of acres of public lands throughout the second half of the nineteenth century.[113] Through the Homestead Act of 1862, Congress gave farmland in the West to the American public. Land became available for settlers once surveyed by the federal government. The act provided 160 acres, a quarter section of public land, to homesteaders. To anyone willing

[109] Bain, *Empire Express*, 116-117, 178-180, 184-192, 227-233; White, *Railroaded*, 59-62.

[110] White, *The Republic for Which It Stands*, 103-135.

[111] Karuka, *Empire's Tracks*, xiv.

[112] Bain, *Empire Express*, 106-116, 158-163, 227-233, 256, 282, 370-373; Karuka, *Empire's Tracks*, 40-45, 69-79, 180.

[113] Douglas Allen, "Establishing Economic Property Rights by Giving Away an Empire," *The Journal of Law and Economics* 62, no. 2 (2019): 251-256.

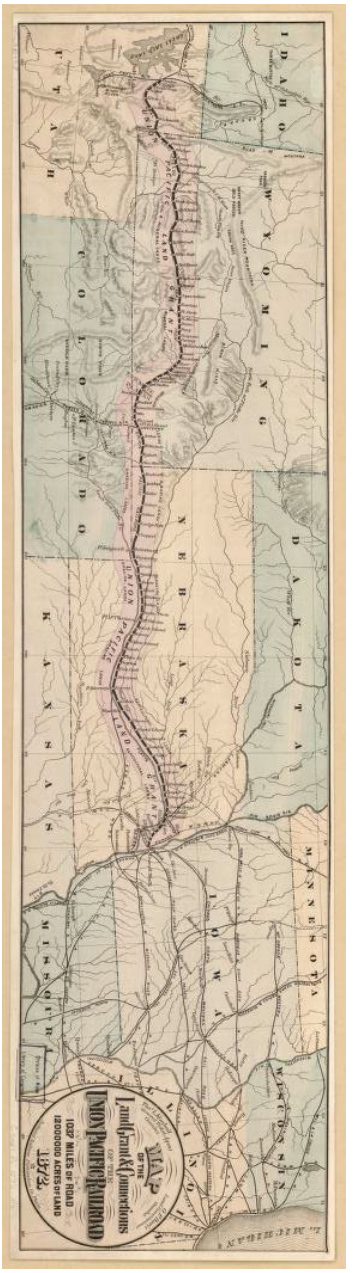

Figure 1: "Map of the Land Grant and Connections of the Union Pacific Railroad" (1872). (Geography and Map Division, Library of Congress)

to farm the land for five years, it was free. To those who waited six months, it was just $1.25 per acre. The land left for homesteads would eventually amount to a total of 705 million acres. Railroads were also major recipients of federal land grants. Between 1850 and 1871, the total land that Congress subsidized for transcontinental railroads amounted to 131,230,358 acres (ranking third in area behind the states of Alaska and Texas).[114]

Congress subsidized enormous amounts of public lands for the companies that built the first transcontinental railroad. The federal government bestowed 20 million acres of public lands through the Pacific Railway Acts of the 1860s. It was "an elephant of unusual proportions."[115] The companies' territory for laying track, blasting tunnels, and building towns spanned from

[114] White, *The Republic for Which It Stands*, 117-125; Richardson, *The Greatest Nation of the Earth*, 170-171.
[115] Phillips, *Letters from California*, 50-52.

the Great Plains to the Sierra Nevada—1,600 miles (more than half the width of the United States). These land grants also included 200 feet for stations and other buildings along the right-of-way, and the companies could use the lands' timber and minerals for construction.[116] For every mile of track, the Union Pacific and Central Pacific received 12,800 acres of land (twenty square miles, enough for eighty 160-acre farms). Across the American West, this came out to ten one-square mile sections of land on each side of the tracks.[117]

Federal land grants to railroad companies were in a "checkerboard" pattern. Railroads received alternate sections of land that stretched ten miles on each side of the right-of-way. This dividing line functioned as the crease in the board of public lands. Land grants placed railroad and homestead lands side by side.[118] The map of Nebraska from the Burlington and Missouri (B&M) Railroad, a trunk line of the Union Pacific, shows shaded and unshaded sections of land that correspond to railroad lands and homestead lands. The shaded squares were the railroad lands that the companies sold for profit. The unshaded squares represented leftover public lands for homesteaders. Each section of land was one square mile, normally worth four 160-acre farms. The land grants for the Union Pacific and Central Pacific provided the space so that for every mile of track, there could be forty farms in either direction.[119]

The checkerboard pattern allowed the sale of public lands to cover the debts of the government and railroad companies. Railroad lands were worth more than typical sections of public lands because the railroad drew in

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[116] Bain, *Empire Express*, 115-116, 178-180; Karuka, *Empire's Tracks*, 67-69.

[117] White, *The Republic for Which It Stands*, 117-121; Ambrose, *Nothing Like It in the World*, 95.

[118] White, *The Republic for Which It Stands*, 117-121.

[119] White, *Railroaded*, 23-25; Allen, "Establishing Economic Property Rights by Giving Away an Empire," 251-256; Kurt Kinbacher and William G Thomas III, "Shaping Nebraska: An Analysis of Railroad and Land Sales, 1870-1880," *Great Plains Quarterly* 28, no. 3 (Summer 2008): 193-196.

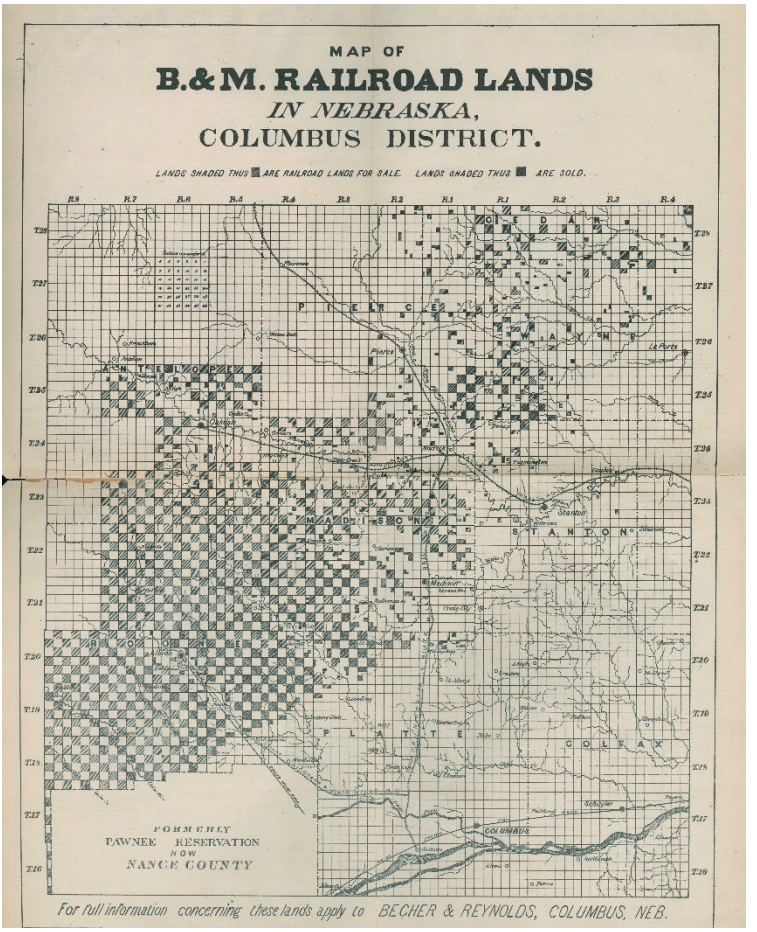

Figure 2: *"Checkerboard" land grants. (Map of B.&M. Railroad lands in Nebraska, Columbus District (1880). Courtesy of Newberry Library, Chicago.)*

settlement and investment. If a settler wanted to own land of 160 acres within sixth months, the price would normally be $1.25 per acre. For sections of public land within the railroad land grants, the government doubled the price to $2.50 per acre and shrunk the size of the section to 80 acres. This translated to eight farms for every square mile, rather than four. The increased revenue from selling more farms helped

railroads cover the cost of construction while reimbursing the federal government at the same time.[120]

The checkerboard was also a tool for building a nation-state and empire. It embodied how Congress and the railroads intertwined to develop a new system of land ownership. The government tasked the railroad companies with both occupying and selling the land through which their railroads ran. As economist Douglas Allen has argued, the checkerboard allowed the federal government to "give away an empire" at no cost and with the bonus of establishing economic property rights on Native land.[121] Land grants were part of the imperial logic that the West was an untapped resource waiting to be developed. In reality, the state and railroad companies organized space to acquire wealth. Railroad and homestead land grants were part of a coordinated effort to draw settlers to the area and turn a profit.[122]

Railroad companies were in the real-estate business. By law, the transcontinentals were required to sell their massive land grants. In addition, with railroads being the most efficient way to get crops to market, selling public lands meant increased revenue from the establishment of agriculture.[123] To induce settlement to the West, the Pacific Railway Act of 1864 provided land grants to midwestern trunk lines for the Union Pacific. The Burlington and Missouri (B&M) Railroad was a crucial force in shaping western settlement in Nebraska. The B&M claimed 2,450,000 acres, nearly five percent of the area of Nebraska. In 1870, the railroad formed the Burlington and Missouri

[120] White, *The Republic for Which It Stands*, 117-121; White, *Railroaded*, 23-25; Douglas Allen, "Establishing Economic Property Rights by Giving Away an Empire," *The Journal of Law and Economics* 62, no. 2 (2019): 251-256.

[121] Allen, "Establishing Economic Property Rights," 251-256.

[122] White, *The Republic for Which It Stands*, 117-121; White, *Railroaded*, 23-25; Allen, "Establishing Economic Property Rights," 251-256; Hahn, *A Nation Without Borders*, 3-6; Karuka, *Empire's Tracks*, 67-69.

[123] White, *The Republic for Which It Stands*, 122-127.

Land Department to organize the systematic selling of its public lands. The B&M Land Department sold seventy-five percent of its land claim in just ten years as settlers rushed to the West.[124]

Railroad companies promoted western settlement through advertising campaigns. For decades, the American West had been thought of as a desert. Land boomers wanted to facilitate settlement by changing the narrative. They appealed to settlers by arguing that "rain follows the plow," that plowing the land would eventually lead to greater rainfall and plentiful crops.[125] Instead of the West being a desert, it would now be a garden of immense agricultural potential. In a B&M Railroad advertisement, one author stated that he could "certify for health, pleasantness, and natural advantages, Iowa and Nebraska are second to none," assuring the reader that the "all that is required is to commence breaking and cropping the land."[126] Boomer literature and publicity bureaus made the Great Plains the ideal home for the white settler. Emigration from the East Coast and across the Atlantic reached historic levels as migrants and independent entrepreneurs poured into Nebraska and other western territories.[127]

As the Union Pacific and Central Pacific laid track and sold public lands, each occupied different spaces of Native land. The Central Pacific—cutting through California, Nevada, and Utah—encountered Indigenous tribes like the Ute, Paiute, Go-si Ute, and Shoshone. The Union Pacific—building through Nebraska, Wyoming, and Utah—primarily

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[124] White, *The Republic for Which It Stands*, 123-124; Allen, "Establishing Economic Property Rights," 262-264; Kinbacher and Thomas III, "Shaping Nebraska: An Analysis," 191-196.

[125] White, *Railroaded*, 486-488.

[126] "Settlement in the West," *Grantham Journal*, May 27, 1871, British Library Newspapers.

[127] David M. Emmons, *Garden in the Grasslands: Boomer Literature of the Central Great Plains* (University of Nebraska Press, 1971), 78, 16-19, 23-46, 78-81, 99-101, 128-129, 196-198; White, *The Republic for Which It Stands*, 122-125; Foner, *Free Soil, Free Labor,* 11-18.

faced Plains tribes like the Lakota, Cheyenne, and Arapaho.[128] Although there had been conflict between whites and Natives in the region of the Sierra Nevada before, the Central Pacific did not face trouble from Native tribes as much as the Union Pacific did on the Plains. Plains tribes like the Lakota were still powerful political and military societies that the U.S. government did not engage with until the mid-nineteenth century. The railroad and all that it brought threatened the uneasy peace between the government and Plains tribes.[129]

In the Sierra Nevada, the Central Pacific Railroad used diplomatic means with Native Americans so that railroad construction continued. Some Chinese laborers were quite scared of the Natives, but the only trouble came from the occasional Indian raid on a stagecoach or wagon train. "The Central people," traveler D.L. Phillips wrote, "took their chances and gave the Government no trouble."[130] Instead of using U.S. troops to fight against local tribes, representatives of the railroad company met with Native leaders and struck a deal. The two parties signed a treaty that protected the Central Pacific's property and labor force in exchange for the Indians having free rides on the railroad anytime. Once Collis Huntington found out, he did not approve as it was not "sound financial policy."[131] Huntington would have rather called in the U.S. army to fight the Natives like the Union Pacific did. That way, "the railroad would have been the

[128] Bain, *Empire Express*, 184-192, 227-233, 265-269, 470-471; B.R. Cowen et. al., "Letter from the Acting Secretary of the Interior, in Relation to the Condition and Wants of the Ute Indians of Utah; the Pai-Utes of Utah, Northern Arizona, Southern Nevada, and Southeastern California; the Go-Si Utes of Utah and Nevada; the Northwestern," February 25, 1874.

[129] Karuka, *Empire's Tracks*, 60-79; Hahn, *A Nation Without Borders*, 15-19, 241-243, 280-285; White, *The Republic for Which It Stands*, 128-132.

[130] Phillips, *Letters from California*, 53-54.

[131] Phillips, *Letters from California*, 53-54.

recipient of the income of the transportation" for carrying out an Indian war.[132]

On the Great Plains, railroad workers and U.S. soldiers fought against Plains tribes as the Union Pacific advanced westward. Chief Engineer Grenville Dodge was well aware of the fact that "the construction of the Union Pacific was upon a military basis."[133] Of course, many Union Pacific men, including Dodge and Casement, had already been soldiers in the Civil War. On the ground, construction boss Jack Casement's train gangs laid track with organization, planning, and precision. But military discipline was the policy of the railroad more generally as it built through Indian land. In the case of an attack, the ceilings of construction cars held 1,000 army-issue rifles to supply railroad workers.[134] Surveying parties of eighteen to twenty-two men were well armed as they set out to survey eight to twelve miles each day in open country. Surveyors were often joined by military escorts of ten to sometimes a company of fifty men.[135]

When Indian raids and war parties got to be too much, the government sent in army expeditions. The U.S. army led campaigns against Indigenous nations across Nebraska, Wyoming, Colorado, and Kansas. Columns of 500 soldiers roamed the Plains to face war parties of sometimes 2,000 warriors. The Union Pacific made attempts at peace offerings with Native leaders like Red Cloud of the Oglala Sioux and Spotted Tail of the Brulé Sioux.[136] However, conflict continued to spiral, and army campaigns often ended in massacres. Despite the killing on the Plains, construction crews pushed forward as the funds kept flowing from Washington.[137]

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[132] Bain, *Empire Express*, 284-289, 470-471; Phillips, *Letters from California*, 53-54; Dodge, *How We Built the Union Pacific*, 12-20; Cowen et. al., "Letter from the Acting Secretary," 22-25.
[133] Hudson, *Plains Country Towns*, 11-12.
[134] Bain, *Empire Express*, 157-164, 261-269.
[135] Dodge, *How We Built the Union Pacific*, 12-15.
[136] Bain, *Empire Express*, 184-192, 227-233, 265-269, 284-287; *Letters from California*, 53-54.
[137] Bain, *Empire Express*, 190-192; Karuka, *Empire's Tracks*, 60-79.

Chief Engineer Grenville Dodge used his military ties to protect railroad workers and occupy Indigenous land. While Dodge resided at the helm of the Union Pacific, William Tecumseh Sherman was commander in the West under General Ulysses S. Grant—the army's commander-in-chief and soon the next president.[138] Sherman visited railroad work sites each year, and he sent letters to Dodge almost every month. Dodge even named a mountain pass after him. Military men like Dodge, Sherman, and Grant allied railroad construction with military occupation. General Grant gave Dodge the discretion to use troops to maximize the pace of railroad construction in the hostile Plains environment.[139] Sherman promised Dodge that when the track gangs went into the Black Hills, "we can act so energetically that both the Sioux and the Cheyenne must die, or submit to our dictation."[140] For Sherman, the Pacific Railroad was "the solution of the Indian question."[141] As historian Richard White has noted, the wars between whites and Natives that the railroad helped to start became justification for its construction. The transcontinental railroad and the military were two sides of a growing nation-state committed to imposing a new political economy on the Great Plains.[142]

In the last phase of railroad colonialism, railroad companies oversaw town development to cultivate a western economy. The Union Pacific Railroad established depots and surveyed town lots every twenty miles.[143] Grenville Dodge used his military and engineering training to supervise the design and construction of towns like Cheyenne across the expansive Wyoming Territory. He revolutionized railroad town development by coordinating departments to spur business growth. Companies like the Union Pacific used

[138] Karuka, *Empire's Tracks*, 66-79, 141-145.
[139] Dodge, *How We Built the Union Pacific*, 12-17.
[140] Bain, *Empire Express*, 312.
[141] White, *The Republic for Which It Stands*, 125.
[142] Bain, *Empire Express*, 190-192, 209-210, 227-233, 265-269; White, *The Republic for Which It Stands*, 103-111, 125-132, 290-305.
[143] Bain, *Empire Express*, 307-312, 370-373, 469-475.

townsite strategies to maximize traffic capture and secure urban centers for commerce. Plains towns had defined areas of building density and streets arranged in a grid pattern.[144] With this structure, they functioned as defined hubs for railroads to ingest agricultural commodities like wheat, lumber, and meat. Plains towns served as the organizing spaces for the resources of the western hinterlands to serve the growth of eastern cities.[145]

The new political economy that western railroads instituted gave birth to midwestern cities like Chicago. The "Porkopolis" on Lake Michigan was the focal point of a railroad infrastructure that connected western resources with eastern industries.[146] Chicago's wealth was in the form of grain elevators, lumberyards, and stockyards. The railroad gave the city the power to reach almost anywhere. The wheat, lumber, and meat that had been grown, cut down, and shipped by rail into the city came out again by railroad to tables, homes, and butchers across the nation. In the *Chicago Tribune,* one author declared that "the extent and value of this commerce, thus to be poured into Chicago, making it the great central and metropolitan city of the continent, no man can estimate."[147] Boosters marketed the city as "the Rome of the railroads," the center of a grand rural-to-urban empire that spread over the North American continent.[148] William Bross, an influential Illinois Republican, believed that Chicago would advance even further once other cities like Milwaukee, St. Louis, and Denver capitalized on their

[144] Hudson, *Plains Country Towns*, 5-16, 70-85.
[145] White, *The Republic for Which It Stands*, 126-127; Cronon, *Nature's Metropolis*, 80-81.
[146] Cronon, *Nature's Metropolis*, iv-xiv.
[147] John D. Perry, Eastern Division Union Pacific Railway, and Chicago Board of Trade, *Union Pacific Railway, (Eastern Division): Action of Board of Trade of Chicago, and Extracts from Leading Journals of Illinois, Showing the Necessity and Advantages of Its Immediate Construction to the Pacific* (Rounds & James Printers, 1868), 6.
[148] Cronon, *Nature's Metropolis*, 42.

respective spheres of natural resources. Railroads laid this commercial hierarchy onto the American landscape.[149]

With the building of the railroad and the settlement of the Plains, the American state and railroad companies reordered land to create new networks of wealth. Railroad hubs now connected western and eastern lands into a national and international market.[150] Continental trade flourished as railroads became the century's technology of expansion. By 1877, the newly incorporated city of San Francisco represented seven percent of all American exports.[151] By the early twentieth century, 42,000 miles of track linked the Great Plains to the rest of the United States.[152]

The state and railroad companies constructed the transcontinental railroad within a Second American System of economic development. Government and business worked together as they had never done before. Railroad men in construction, finance, Congress, and the military were key intermediaries, forever altering the political landscape as much as the environment itself.[153] Building the railroad left behind structures for owning and developing public lands, displacing Indigenous peoples, and forming economic pathways between city and country.[154] Land grants, military occupation, and town development were the public-private tools within a political system that made railroad-building the primary mechanism for nation-building.

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[149] Perry et. al., *Action of Board of Trade of Chicago*, 6; White, *The Republic for Which It Stands*, 122-127.

[150] West, "Reconstruction in the West;" White, *The Republic for Which It Stands*, 117-135.

[151] Ambrose, *Nothing Like It in the World*, 369-371.

[152] David J. Wishart, "Encyclopedia of the Great Plains | Railroads, United States."

[153] White, *The Republic for Which It Stands*, 103-135.

[154] Karuka, *Empire's Tracks*, xiv, 40-45, 66-79, 180; Hudson, *Plains Country Towns*, 10-13; Cronon, *Nature's Metropolis*, xiii-xiv, 25-26, 41-42, 81-83.

Subversion of a Dream

With the pounding of the last spike in 1869, the Pacific Railway forever changed time and space. It was the binding link of a railroad infrastructure that was the central nervous system for American industrialization. By 1868, the United States had 40,000 miles of track—forty percent of the world's rail. In the last fifteen years, the population increased ninety percent, with production surging 230 percent.[155] In *Roughing It* (1872), Mark Twain remembers seeing the transcontinental railroad for the first time. As he traveled by stagecoach along the Platte River, Twain said, "I can scarcely comprehend the new state of things."[156] Before the railroad, the trip from New York to San Francisco cost more than $1000 and several months by boat. Now, it took seven days, with tickets as low as $65. It was an overland miracle. With trains travelling as much as sixty miles per hour, the railroad accelerated the American economy by drastically lowering the time and money it took to ship people and products. Ideas moved even faster. A transcontinental telegraph, built as workers laid rail, transmitted messages from coast-to-coast in seconds.[157] By tying together the North American continent, shrewd and steel-driving men built a railroad that paved the way for America's western dreams.

The Pacific Railway was the first of several transcontinentals that exhibited a robust, yet problematic system of nation-building in the nineteenth century United States. The state and private corporations joined together to accelerate economic development through westward expansion.[158] As Indigenous land was bought and fought over, the federal government granted lands and loans to private companies. These railroad companies not only built railroads; they also sold land to settlers and designed plains

[155] Ambrose, *Nothing Like It in the* World, 17-22, 369-371; White, *Railroaded*, 37-38.
[156] Mark Twain, *Roughing It* (Hippocrene Books, 1872), 18-29.
[157] Ambrose, *Nothing Like It in the* World, 369-371.
[158] White, *The Republic for Which It Stands*, 117-132; Bain, *Empire Express*, 106-116, 178-180, 227-233, 549, 711.

towns to bring western crops to eastern cities.[159] Railroad men grew increasingly rich and connected as the nation itself did. The structures that helped build the railroad and settle the Plains scarred the American landscape with tracks that deepened for decades. By building the railroad and the new West, railroad men deepened political corruption, shaped government finance to business interests, and intensified environmental degradation.[160]

The Crédit Mobilier scandal unmasked the corruption between railroad financiers and public officials in the federal government. Thomas Durant and congressman Oakes Ames of Massachusetts had built the Union Pacific on a trestle of bribery that stretched across the nation. More than the unsavory few had indulged in the railroad bonanza.[161] The Union Pacific had sold stocks, bonds, and land below market prices to many government officials in exchange for favorable railroad policy. The scandal was on the front page of the *New York Sun*, then the *New York Tribune*, and then almost every major newspaper in America.[162] It included Oakes Ames's list of bribed politicians. Ten years ago, he was the "King of Spades," now he fronted the "King of Frauds."[163] Durant assured congressional investigators that "the Government was never robbed or cheated; it was the parties who undertook to build the road, who put their money into it, and who ought to have got out of it whatever there was."[164] In reality, the owners of the Union Pacific and Central Pacific profited an estimated $26 million from using fraudulent construction companies to build the

[159] Karuka, *Empire's Tracks*, xiv, 40-45, 60-103, 180; Hudson, *Plains Country Towns*, 5-16, 70-71.
[160] White, *Railroaded*, 17-36, 455-493, 507-517.
[161] Bain, *Empire Express*, 106-116, 178-180, 675-705, 711.
[162] White, *The Republic for Which It Stands*, 1-3, 255-257.
[163] Bain, *Empire Express*, 177, 676-678.
[164] United States House of Representatives, *Credit Mobilier Investigation*, House Report No. 77, 42nd Cong., 3rd sess., February 18, 1873, 107-109.

transcontinental railroad.[165] The cultivation of "friendships" between railroad men bred the kind of corruption that would haunt American politics for the rest of the Gilded Age.

Americans grew increasingly aware of railroad companies' corrupting influence on the political system. Some public figures like William Bross called for the nation to hold the railroads accountable.[166] Charles Francis Adams, a politician and later railroad executive, wrote about the Pacific Railroad and its "scandalous, internal abuses, incident to corporate control."[167] Adams argued that the railroad would eventually hurt the trade that it was built to create, acting as "a source of corruption in the politics of the land, and a resistless power in its legislature."[168] D.L. Phillips, who had traveled from Springfield, Illinois to San Francisco, California on the Pacific Railway, was outraged by the crooked inefficiency spawned by the railroad companies. "Let it be wiped out at once," he wrote. "Let every journal in the country denounce it until it no longer harasses trade, robs the public, and insults and outrages the whole traveling community."[169] Originally seen as the messenger of continental wealth, the transcontinental railroad was now a force of exploitation.

Congress's giveaway had contributed to the railroad companies' growing power. The $60 million in bonds the federal government loaned to the railroad companies came with conditions. The legislation made it so that the companies would have first-rate mortgage bonds for the

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[165] White, *Railroaded*, 17-36, 62-66, 93-103; United States Pacific Railway Commission, *Report of the Commission and of the Minority Commissioner* (Government Printing Office, 1888), 73-76, 992-994.

[166] William Bross, *Address of the Hon. William Bross ... on the Resources of the Far West, and the Pacific Railway, before the Chamber of Commerce of the State of New York, at a Special Meeting* (J.W. Amerman Printer, 1866), 13.

[167] Charles F. Adams, "The Government and the Railroad Corporations," *The North American Review* 112, no. 230 (1871): 31-33.

[168] Bain, *Empire Express,* 600.

[169] D.L. Phillips, *Letters from California*, 8, 126.

massive government loan.[170] Legislators wrote the law so poorly that courts later decided that the railroads only had to pay the simple interest on the government bonds as it accrued. This meant that the government had to pay the interest on the bonds at six percent for thirty years. In the end, it was a $43 million handout to the railroad companies.[171] The government started out as the railroads' creditor, but now it was the one in debt.

The men who built the transcontinental railroad made more money than the railroad itself ever did. Financial schemes left railroad men with profitable sidelines, but the railroad companies they owned eventually amassed tremendous debts. The railroads had to charge high freight costs just to cover what it took to operate across large distances.[172] Moreover, the railroad never brought the Asian trade. Most wealth came from the sale of land and the agricultural hubs developed within the interior.[173] However, the benefits of western lands that boosters had advertised to settlers eventually became an empty promise. The call of "rain follows the plow" fell on dusty fields.[174] By the late 1880s, drought and crop failure in the Plains brought plummeting prices and land values. Nearing the declared close of "the Frontier" between 1880 and 1900, per capita income in the West declined.[175]

The state and private corporations built an industrial infrastructure that never factored in the lives of the people and animals living on the Great Plains. The railroad first

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[170] Bain, *Empire Express*, 116-117, 145-148, 178-180, 711.

[171] White, *The Republic for Which It Stands*, 117-120; White, *Railroaded*, 22-38, 82-84; Richardson, *The Greatest Nation of the Earth*, 202-206. Pacific Railway Commission, *Report of the Commission*, 992-994.

[172] White, *The Republic for Which It Stands*, 119-127, 132-135, 425-439.

[173] Ambrose, *Nothing Like It in the World*, 369-371.

[174] White, *Railroaded*, 486-488.

[175] White, *Railroaded*, xxxiii,-xxxiv, 22-36, 188-192, 486-493; Cronon, *Nature's Metropolis*, xiii-xiv, 25-26, 41-42, 46-54, 81-83; Emmons, *Garden in the Grasslands*, 25-26, 128-129.

Figure 3: *"Buffalo Killed on the Plains" (Photograph by Laton Alton Huffman, ca. 1880). (Wyoming Stock Grower's Association.)*

disrupted the life of Indigenous nations. White settlers and the federal government fought wars against Native Americans and increasingly moved them onto reservations. Indigenous land became public land, then land for settlers and corporations.[176] During and after construction, the railroad allowed for hunters to efficiently slaughter bison as American consumers hungered for the meat and hides that

[176] White, *The Republic for Which It Stands*, 122-132; Bain, *Empire Express*, 190-191, 549.

they provided. In the 1870s, hunters killed about 1.75 million bison on the southern plains, making up 306 carloads of freight each year. As the big business of cattle branded itself onto the western landscape, railroads transported cattle from the range in extremely harsh conditions. In the 1880s, six percent of cattle did not survive the journey from Cheyenne to Chicago. Train workers dumped their carcasses next to the railroad tracks.[177]

The story of the railroad is the story of the men who built it, not in their deeds but in their relationships—and the system of creation and destruction they conceived. By the time the Union Pacific and Central Pacific met at Promontory, Utah, the government and the railroad companies had linked together a new American System of nation-building. Railroad men came together to pave the New West.[178] It not only brought a continental economy but also a political system that thrived on corruption, supported industry at every turn, and disregarded Indigenous peoples and the western environment they called home.[179] The first transcontinental railroad has been remembered as an engineering marvel that opened the West to settlement. Although this is true, the railroad is better framed as a harbinger of the modern America that partnerships between government and business have produced.

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[177] White, *Railroaded*, 460-493, 517.

[178] Bain, *Empire* Express, 106-116, 178-180, 549, 711.

[179] White, *Railroaded*, 26-36; 455-517; White, *The Republic for Which It Stands*, 103-135; Karuka, *Empire's Tracks*, xi-xv, 60-103.

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Sunny Days
The Beginning of Children's Educational Programming Through *Sesame Street*

Catherine Radko
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> I think *Sesame Street* shows diverse people as individuals and human beings to the public. I think it also tells the public and *continues* to tell the public kids are people too. They understand more than you think and shouldn't be talked down to. They're not second-class citizens.
>
> —Sonia Manzano, 2004. [1]

In November 1969, the children's television program *Sesame Street* began airing to viewers on public television. Created with the goal of serving underprivileged children of color, *Sesame Street* went to great lengths to become a show that would impact many people.[2] The show's combination of animation, live-action sketches, and music was meant to grab young learners' attention and provide them with a head start in their education. *Sesame Street* was, and continues to be, an extremely influential show, not just for the way it portrays different cultures and children, but also in the way the production itself is run. By

[1] Sonia Marzano, interview by Karen Herman, *The Television Academy Foundation*, July 15, 2004.

[2] Lloyd Morrisett, interview by Karen Herman, *The Television Academy Foundation*, July 21, 2004.

being the first children's show to link educational curriculum and entertainment, the Children's Television Workshop (CTW), now the Sesame Workshop, was able to create a children's show with a lasting impact. Not only was this true with American audiences, but also across the globe. Both as a model and as a product itself, *Sesame Street's* production *and* content were groundbreaking. As such, the show helped pave the way for new children's educational programs and educational methods to develop.

The meeting of Joan Ganz Cooney and Lloyd Morrisett in 1961 marked a critical shift in the ways children's television is created. Morrisett and Cooney both had visions of finding a new way to harness the power of television and decided to solidify these ideas with research in childhood development and psychology.[3] After gaining financial backing from the Carnegie Corporation, the Ford Foundation, and the United States Federal Government in the late 1960s by displaying their in-house research, the newly founded CTW began to work on production for *Sesame Street* around the same time.[4] This multimedia production emphasized using flashy marketing techniques, like those on television and in magazines, not unlike a variety show, to engage young audiences with educational content.[5] According to Phillip B. Levine and Melissa Kearney, before *Sesame Street*, television programs aimed at children generally did not focus on learning, and Cooney's program sought to fill this gap in the market.[6] The long-lasting impact of this show was primarily the result of the relationship between the writers and researchers. By creating bite-sized segments that held children's attention span, researchers assisted in creating

[3] Joan Ganz Cooney, interview by Shirley Wershba, *The Television Academy Foundation*, April 22 & 27, 1998; Lloyd Morrisett, interview by Herman.

[4] Morrisett, interview by Herman.

[5] Cooney, interview by Wershba.

[6] Melissa S. Kearney and Phillip B. Levine, "Early Childhood Education by MOOC: Lessons from *Sesame Street*," *National Bureau of Economic Research Working Paper Series* (June 2015), 7.

and implementing impactful educational segments for children. These short segments have been proven to positively impact educational readiness, according to studies conducted by researchers in 1975, 1979, and 1995, as analyzed and compiled by Keith W. Mielke, the former Executive Director of Research for the CTW.[7] The emphasis on *Sesame Street*'s usage of a curriculum, technology, and diversity efforts sets it apart from other children's programming in a way that had never been done prior. The methodology employed by the CTW via *Sesame Street* heralds it as a truly influential piece of children's media.

Understanding the Paradigm Shift: Why Sesame Street is Unique

Thomas S. Kuhn introduced the idea of the paradigm shift. Kuhn posits that science is not something that gradually changes, but rather it shifts in a way that makes preconceived notions obsolete. [8] Although Kuhn's discussions regard scientific revolutions, the idea of the paradigm shift can be applied to other areas as well. Kuhn explains that revolutionary changes occur when people offer updated or new solutions for existing issues and that these changes still operate within what is generally accepted by the majority.[9] The theories that replace the existing paradigm are generally regarded as better than what came before them, as they are more effective methods of solving the issue at hand.[10]

In the 1960s, Cooney and Morrisett noticed that children's entertainment and education were in a state of crisis, which Kuhn describes as a time when a fundamental

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[7] Lewis Bernstein, interview by Karen Herman, *The Television Academy Foundation*, July 21, 2004; and Mielke, "A Review of Research on the Educational and Social Impact of *Sesame Street*," 91-2.

[8] Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (University of Chicago Press, 1996), 166.

[9] Kuhn, *The Structure of Scientific Revolutions*, 167.

[10] Kuhn, *The Structure of Scientific Revolutions*, 206.

idea of the field is called into question and when paradigms begin to oppose each other.[11] The two wanted to enact Kuhn's so-called "extraordinary science" by applying the same eye-catching concepts as advertising and magazines to television.[12] There was a strong and critical pushback against the pair's ideas, as highlighted by letters to the show and published opinions. This put emphasis on the challenge, and the start of a paradigm shift for children's television. Ideas from Cooney and Morrisett's work led to this change in the paradigm, ultimately affecting how children's television was approached by other producers around the world.

Jonathan Kelley and Herbert S. Klein argue that revolutionary movements have both short-term and long-term effects, and that each aspect is important to examine to determine the lasting effects of a revolution.[13] Kelley and Klein's research display the importance of examining both short- and long-term effects of revolutions. Although Kelley and Klein use this framing to discuss radical peasant revolutions, this specific framework is useful to examine non-radical revolutions.

As argued by Edmund Ghareeb, the media plays a critical role in disseminating information and creating new networks of information, allowing for revolutionary ideas to reach a wider audience, which itself is revolutionary.[14] Ghareeb examines the implications of the information revolution and, in doing so, mentioned that revolutions with new technologies are inherently elitist, as new tech is generally expensive, but as time goes on, prices decrease, making them

[11] Kuhn, *The Structure of Scientific Revolutions*, 163.

[12] Kuhn, *The Structure of Scientific Revolutions*, 166; and Cary O'Dell, *Women Pioneers in Television: Biographies of Fifteen Industry Leaders* (McFarland & Company, 1997), 70.

[13] Jonathan Kelley and Herbert S. Klein, "Revolution and the Rebirth of Inequality: A Theory of Stratification in Postrevolutionary Society," *American Journal of Sociology* 83, no. 1 (1977): 78–99.

[14] Edmund Ghareeb, "New Media and the Information Revolution in the Arab World: An Assessment," *Middle East Journal* 54, no. 3 (2000): 395–418.

more accessible.[15] As Ghareeb points out, advances in technology and communication have had a great impact on the world and it is easy to forget about this as technology became more commonplace.[16]

The work of Marvin Lazerson, Ursula Wagener and Nichole Shumanis in 2000 goes into detail regarding developments in education, involving changes in pedagogical practices with the goal of improving the quality of teaching.[17] The scholars note that changes in teaching norms were often met with resistance and that careful work had to be done to convince people of these changes.[18] They highlight methods used by various scholars in higher education, like Derek Bok and Richard Light, who emphasize active learning and interactivity, among many others.[19] Lazerson and his colleagues make a point to highlight that despite these efforts, institutional change is difficult to implement, especially in higher education.[20] Their work highlights how approaching teaching as a scholarship greatly changes the ways that new educational practices are implemented, which alters how new methodologies are accepted by the people.

John Foran's theory argues that at the start of a revolution, there must be a group of underrepresented people or a repressed group.[21] As such, the presence of the group and their airing of grievances helps to facilitate a multi-class alliance against the injustice.[22] The acknowledgement of the issue and the efforts to do away with it slowly are what

[15] Ghareeb, "New Media and the Information Revolution," 396.
[16] Ghareeb, "New Media and the Information Revolution," 397.
[17] Marvin Lazerson, Ursula Wagener, and Nichole Shumanis, "What Makes a Revolution?: Teaching and Learning in *Higher Education*, 1980-2000." Change 32, no. 3 (2000): 13-14.
[18] Lazerson, Wagener, and Shumanis, "What Makes a Revolution?" 15.
[19] Lazerson, Wagener, and Shumanis, "What Makes a Revolution?" 16.
[20] Lazerson, Wagener, and Shumanis, "What Makes a Revolution?" 19.
[21] John Foran, "The Future of Revolutions at the Fin-de-Siècle," *Third World Quarterly* 18, no. 5 (1997): 793-4.
[22] Foran, "The Future of Revolutions," 793.

Foran describes as revolutionary in nature. His work highlights how a participatory society can be obtained through revolutions and emphasized how the social aspect of a revolution plays a critical role in creating societal change.

Children's Programming Before Sesame Street

The history of the American family and television is complex; it is a history of moral panics and fear.[23] Research conducted by Sonia Livingstone, a professor in the Department of Media and Communications at the London School of Economics and Political Science, explains that in the 1950s, television had become the primary leisure activity of children.[24] Despite misconceptions regarding family time and television in the mid-century, the television acted more as a babysitter to children where they watched inappropriate programming by themselves, as opposed to the idea of "family time" that was commonly thought of during this time.[25] The CTW sought to rectify this and similar issues by making the television a tool for learning through *Sesame Street*.

Prior to the premiere of *Sesame Street*, children's television programming was primarily slapstick or cartoonish. As Levine and Kearney's research displays, the children's television landscape in the early 1960s was filled with cartoons like *Looney Tunes* and *Tom and Jerry*.[26] The primary purpose of these cartoons was entertainment, rather than education. Programs like these and their immense popularity contributed to the widespread idea that television was for mindless entertainment.[27] However, children's educational programming was also being broadcast in the 1950s and 1960s with shows such as *Ding Dong School* (1953), *Captain Kangaroo* (1955), and *Mister Rogers' Neighborhood* (1968). These

[23] Sonia Livingstone, "Half a Century of Television in the Lives of Our Children," *The Annals of the American Academy of Political and Social Science* 625 (2009): 152.
[24] Livingstone, "Half a Century of Television153.
[25] Livingstone, "Half a Century of Television," 153.
[26] Kearney and Levine, "Early Childhood Education by MOOC," 7.
[27] Kearney and Levine, "Early Childhood Education by MOOC," 7.

programs taught simple lessons or guided children on how to perform tasks, however lacked a curriculum to guide their teachings. As such, Joan Ganz Cooney wanted to fill the gap in the market by creating a children's show whose main purpose was to educate children.[28]

In the late 1960s, the Carnegie Corporation began working towards creating programs to reach more disadvantaged youth, yet according to Lloyd Morrisett, these programs were never reaching more than a couple thousand children.[29] As a result, the Carnegie Corporation was looking for a new manner of distributing and creating programs to close the educational gap. Morrisett recounted that a friend, Julian Gans, urged him to discuss ideas about children's education with his cousin Joan Gans Cooney in 1958, yet Morrisett did not approach the idea until 1961.[30] Upon meeting Cooney, the two began talking about if TV could be used to teach children. Eventually, they settled on designing a feasibility study that ultimately concluded that educational television was possible.[31] Cooney explains that the proposal drew interest from Carnegie, the Ford Foundation, and Harold Howe, the Commissioner of Education at the time.[32] The group then worked on a proposal for the Children's Television Workshop and options for the show. When a proposal was completed and a million dollars was put up by the Carnegie Corporation, the issue then became convincing organizations to fund the project.

The idea was promising to many, but because of the stigma surrounding the quality of television—specifically children's television—in the 1960s, the project had difficulty obtaining funding for the program. *Sesame Street* faced challenges in convincing groups like the Carnegie Corporation and the Ford Foundation to fund their program, as television was viewed as something improper

[28] Kearney and Levine, "Early Childhood Education by MOOC," 7.
[29] Morrisett, interview by Herman.
[30] Morrisett, interview by Herman.
[31] Morrisett, interview by Herman.
[32] Cooney, interview by Wershba.

and inappropriate for education, because of the reputation of children's programming at the time.[33]

In Morrisett's recounting of events, the journey of obtaining sponsorships was arduous, with many groups respectfully declining airtime or funding but instead offering advice. He explained that once they had gotten $4 million from the Office of Education, the remaining funding was easy to find.[34] However, even now that the program was fully funded, stations like NBC were still refusing airtime. The main issue was the lack of advertising on the program, but they could easily get on public broadcasting. So, the show found its home in public broadcasting, with early episodes being physically brought from station to station, finally hitting the airwaves.

Getting to Sesame Street from Research to Screen: Incorporating Curriculum in TV

Education and educational research were always the foundation and core of *Sesame Street* and its mission. So, the question of how to adapt children's educational concepts to the screen became a big one. For Cooney, research was always guiding the actions of the program and was the foundation of the show—"without research, there would be no *Sesame Street*."[35] By capitalizing on something children already had an acute interest in, they believed *Sesame Street* would be a hit.[36]

In the early 1960s and before, children's programming did not focus on educational content, with programs like *Looney Tunes*, *Howdy Doody*, and *Tom and Jerry* being the primary forms of television entertainment for children, according to

[33] Kearney and Levine, "Early Childhood Education by MOOC," 7.
[34] Morrisett, interview by Herman.
[35] Joan Ganz Cooney, "Foreword," in *"G" is for Growing: Thirty Years of Research on Children and Sesame Street,* ed. Shalom M. Fisch and Rosemarie T. Trugilo (Lawrence Erlbaum Associates Publishers/Routledge, 2001), xi.
[36] Cooney, "Foreword," xi.

research by Levine and Kearney.[37] Levine and Kearney also explain in relation to the existing paradigm, it was generally agreed upon that television for children was mostly mindless entertainment programming. So, according to Lloyd Morrisett, it was difficult to convince people to view television as a medium for education.[38]

Sesame Street was the first children's program built around a "comprehensive curriculum" that has measurable learning outcomes created through the unique collaboration between researchers and producers.[39] According to Lewis Bernstein, former Executive Vice President of Education Research and Outreach at Sesame Workshop, there was "a method to the madness" at *Sesame Street*, in which the researchers and writers were put into what he called "a shotgun marriage."[40] He said that educators and producers learning each other's language was critical to creating both educational and entertaining media for children.[41] The methodology has many moving parts, with research involving children being crucial to deciding how the educational content was incorporated in the segments, using many different techniques to test comprehension and attention for the children.[42] Bernstein explained that as the goal of the show was to target disadvantaged youth who were falling behind in learning, so the Sesame Workshop wanted to make sure that *Sesame Street* was as effective as programs like Head Start, reaching children and teaching social needs and morals.

In a study by Keith Mielke, data showed that the heaviest viewers of the show, ages three to five, learned the most from the program—like being able to correctly identify rectangles—for the first few seasons.[43] At the second-year

[37] Kearney and Levine, "Early Childhood Education by MOOC," 7.
[38] Morrisett, interview by Herman.
[39] Koeun Choi, "*Sesame Street*: *Beyond 50*," *Journal of Children and Media* 15, no. 4 (2021): 597–603.
[40] Bernstein, interview by Herman.
[41] Bernstein, interview by Herman.
[42] Bernstein, interview by Herman.
[43] Keith W. Mielke, "A Review of Research on the Educational and Social Impact of *Sesame Street*," in *"G" is for Growing: Thirty*

evaluation point, Mielke found that teachers reported heavy viewers of *Sesame Street* ranked higher in general school readiness, positive attitudes about school and learning, and good relationships with their peers.[44] Mielke reported tests were also done using the Peabody Picture Vocabulary Test in the late 1960s to measure for language acquisition. Data showed that for younger viewers—aged about three years old—of *Sesame Street*, watching the show was a significant factor in predicting vocabulary scores.[45] Also, this language acquisition was independent of parents' presence, the parent's education, the child's gender, and parental attitudes regarding television.[46] After ten years, *Sesame Street* received some critiques for its practices, like those by Jerome and Dorothy Singer, two Yale psychologists, who argued the program's "pace leaves too little time for reflection and may distort children's view of the real world."[47] Despite what critics have said, the results of these early studies displayed positive correlations between viewing *Sesame Street* and increased skills in reading and mathematics, general school readiness, and low antisocial behavior.[48] These early studies on the effectiveness of the program displayed that the program could be a success in the long run.

Long-term studies have reflected the findings of early studies, suggesting the long-term effects of watching *Sesame Street.* A 2015 study conducted by Phillip B. Levine and Melissa Kearney found similar results, suggesting that the show provided a positive impact on school readiness for young children, with statistics showing that this positive impact was especially true for boys, black, non-Hispanic children, and children from economically disadvantaged

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Years of Research on Children and Sesame Street, ed. Shalom M. Fisch and Rosemarie T. Trugilo (LEA/Routledge, 2001), 86-7.

[44] Mielke, "A Review of Research," 87.

[45] Mielke, "A Review of Research," 89.

[46] Mielke, "A Review of Research," 89.

[47] Fred M. Hechinger, "About Education," *The New York Times*, November 6, 1979.

[48] Mielke, "A Review of Research," 91-2.

areas.[49] Most importantly, they said *Sesame Street* was one of the most affordable early education intervention programs available.[50] However, the data from Levine and Kearney's study shows that the effects of the program were not long-lasting, meaning they did not affect students into high school. Yet, according to the Sesame Workshop website, children who grew up watching *Sesame Street* "have 16 percent higher GPAs in high school than their peers," but the source and data they cite is not clear.[51] Data from a 2000 study by Aletha C. Huston and colleagues also supports Sesame Workshop's claims.[52] The study ultimately concluded that because of these effects *Sesame Street*'s impact is something comparable to the Head Start Program and Perry Preschool.[53] These studies conducted about forty-six years after the show began display that not only were Cooney and Morrisett successful in developing a new paradigm, but also the program was in fact successfully implemented *and* achieved its intended goal of providing young children with a solid foundation for school readiness and positive social skills.

Research was constantly being conducted by the Workshop on many subjects like cognition, literacy, and numeracy. Statistical studies conducted by researchers have examined the effectiveness of *Sesame Street* in several cognitive and behavioral areas. A collection of research by Shalom M. Fisch and Rosemarie T. Truglio highlights data showing that viewing *Sesame Street* was positively associated with performances in reading, math, vocabulary, and school readiness.[54] There was also research conducted related to the messages of racial diversity in the show that generally

[49] Kearney and Levine, "Early Childhood Education by MOOC," 6.
[50] Kearney and Levine, "Early Childhood Education by MOOC," 12.
[51] Sesame Workshop, "Sesame Street."
[52] Aletha C. Huston et al., "Sesame Street Viewers as Adolescents: The Recontact Study," in *"G" is for Growing: Thirty Years of Research on Children and Sesame Street,* ed. Shalom M. Fisch and Rosemarie T. Trugilo (LEA/Routledge, 2001), 137.
[53] Kearney and Levine, "Early Childhood Education by MOOC," 37.
[54] Mielke, "A Review of Research," 90.

involved asking children which child they would play with, with the studies showing children who watched *Sesame Street* were more open to playing with children of a different race than they were.[55]

Specific social issues were repeatedly targeted in the show, such as the topics of death and pregnancy, with one of the most poignant examples being the storyline dealing with the death of "Mr. Hooper," which aired Thanksgiving 1983.[56] Prior to the broadcasting of the episode, several studies were conducted to determine children's and parents' responses to the subject matter. Four primary questions were asked by the research team: 1. Will children understand the three key messages about "Mr. Hooper's" death? 2. How attentive will children be to the storyline? 3. How will parents respond to our treatment of such a sensitive topic on *Sesame Street*? and 4. Will children be disturbed by this story either immediately after viewing or during the following week? [57] Different methodologies were employed to test the children's comprehension, with results showing 73 percent of four- and five-year-olds knew that "Mr. Hooper" was dead, and 88 percent understood he was not coming back, but only one-fourth of the three-year-olds understood the messaging.[58] The data highlights how critical research was in appropriately discussing a topic like this to children. Moreover, by discussing difficult topics such as death, Sesame Workshop treated children with respect, which in and of itself was a groundbreaking way to deal with children.

Long term effects of the program, as researched by the University of Kansas and other groups retold by Bernstein in 2004, display that children who have watched *Sesame Street* as young children were shown to have been affected

[55] Bernstein, interview by Herman.

[56] Cooney, interview by Wershba.

[57] Rosemarie T. Truglio et al., "The Varied Role of Formative Research: Case Studies From 30 Years," in *"G" is for Growing: Thirty Years of Research on Children and Sesame Street,* ed. Shalom M. Fisch and Rosemarie T. Trugilo, (LEA/Routledge, 2001), 73.

[58] Truglio et al., "The Varied Role of Formative Research," 74.

positively, with their reading levels, ability to graduate high school, and attend college being positively affected by their viewing of the show.[59] Additionally, Huston and colleagues conducted a longevity study in 2000 showing that adolescents who were frequent viewers of the show at age five had higher scores in math, science, and English, and spent more time reading outside of school by the time they were in high school. The study also shows that these teens expressed less aggressive attitudes than those who were not frequent viewers.[60] The impact *Sesame Street* had on youth even later in their lives highlights the positive effects of children's educational television even past the time children would be watching the show. The long-term impact of the program highlights how an emphasis on a comprehensive curriculum helped to alter the way producers approached how they made media for children and the way that children's education was approached.

The critical relationship between researchers and producers set *Sesame Street* set it apart from other children's productions at the time, which generally focused on fast-paced action and violence. The mere fact that there was a show on the air with a curriculum was revolutionary. Today, there are countless shows for children with educational goals, like *Blue's Clues* or *Dora the Explorer,* but without the model created by *Sesame Street,* programs like these would likely not exist.

Robert W. Morrow's *Sesame Street and the Reform of Children's Television* argues that *Sesame Street* challenged the traditional approach to children's television media and that the show, in turn, influenced the larger television landscape to create more educational programming, especially for underprivileged communities. Morrow's work emphasizes how the educational aspect of the program was what was revolutionary as it created a wave in media production, inspiring others to make educational television, even if they

[59] Bernstein, interview by Herman.
[60] Huston et al., "Sesame Street Viewers as Adolescents," 140.

were not all successful.[61] He also discusses commercial popular culture and the historical racial divides created in the arts, explaining why *Sesame Street's* approach to inclusivity through a predominantly black cast was important.[62] He argues that the impact of *Sesame Street* was still being seen decades after it first began airing and that many more programs will follow this model, but the question of these new programs' success remains to be seen.[63] Despite this, Morrow's primary focus in discussing the impact of *Sesame Street* centered on unsuccessful programming for children's education shows that only lasted for about a season.[64] By the time his book was published in 2006, countless educational programs for preschoolers and older children had begun airing, but he instead focuses on the shows from around the 1970s, showing short-term impacts. Morrow's discussions on *Sesame Street's* impact seem to assume that in order to highlight the show's impact, there must be another successful highly experimental show on the air. However, this negates the impact it has had in spawning the genre of curriculum-based educational programs in the years following *Sesame Street*'s release. By using a wider lens to examine the impact of the program on children's television, the continuing impact of *Sesame Street* and the success of the educational programming revolution is much easier to showcase.

As a response to the criticisms Sesame Workshop has received over the years, they have generally adapted and changed based on feedback, primarily given by scholars and professionals. Cooney noted that changes in the program were constant, but the format rarely changed. As studies began to show that children's attention lagged around the 45-minute mark, they decided to create a "show within the show" with the advent of "Elmo's World" to adapt to the

[61] Morrow, *Sesame Street and the Reform and the Reform of Children's Television* (Johns Hopkins University Press, 2006), 32.
[62] Morrow, *Sesame Street and the Reform*, 6, 10-15.
[63] Morrow, *Sesame Street and the Reform,* 171.
[64] Morrow, *Sesame Street and the Reform*, 129.

needs of children.[65] Updating the program based on new research highlights how *Sesame Street's* relationship to research was not surface level. The research was—and still is—a critical part of the show and it guides the way it has changed over time.

The Importance of TV and Technology

In 1960, around 87 percent of American families owned television sets, meaning it would be an effective *and* accessible way to disseminate information.[66] Before *Sesame Street* began airing, however, the CTW advertised the show with a promotional campaign and a news conference.[67] Because the CTW chose to use such a popular medium as a means to educate children, it was more likely that they were to reach a wider audience through a lack of competition. Adapting to and utilizing new information technology would also further serve to create success for the company. Starting in 2009, *Sesame Street* gained a presence on Twitter (now "X") through a show account, and in 2014, they began posting on the same site as characters on the show.[68] In doing so, *Sesame Street* was able to use new and growing social media platforms to draw more engagement and gain an audience and more engagement from a wider demographic of adult audience members. Even as of 2024, the various *Sesame Street* social media accounts make posts that go viral, be it for their content or the responses from the online community.[69] This usage of more recent communications technology like the internet and social media highlights the program's adaptability as it allows for the Workshop's message to reach

[65] Cooney, interview by Wershba.
[66] Morrow, *Sesame Street and the Reform*, 16.
[67] Morrow, *Sesame Street and the Reform*, 112-3.
[68] Sesame Street (@Sesamestreet), October 2009, Twitter; Sesame, Bert (@BertSesame), May 2014, Twitter.
[69] Sesame Street (@Sesamestreet), "The letter X will be holding a press conference later today. #TwitterX," *Twitter*, July 24, 2023; and Elmo (@Elmo), "Elmo is just checking in! How is everybody doing?" Twitter, January 29, 2024.

more people than just children and parents, meaning more adults would be aware of their goals and efforts.

Helle Strandgaard Jensen takes a more global approach to the issue of *Sesame Street*'s impact. By examining complexities in transnational media markets, Jensen is able to display how *Sesame Street*'s educational model was able to travel through global markets and create great social change by addressing issues of diversity, empathy, literacy, and inclusion. Jensen argues that since the show was made with specific issues and curriculum in mind, it needed to adapt to meet the needs of different markets.[70] While emphasizing their role as a non-profit the CTW worked carefully to sell their product to foreign markets, by doing things like marketing at festivals.[71] Like many other scholars have highlighted, Jensen notes that the combination of research and formalized educational goals is partially what made the show so attractive to people, even in the foreign market.[72] Jensen also makes note of how Sesame Workshop utilized co-productions and the "Open Sesame" model, dubbing *Sesame Street* into different languages, and the approaches they took towards localization of these shows.[73]

Jensen uses three European case studies, the United Kingdom, West Germany, and Scandinavia, to further explain the strategies, successes, and failures seen by the Sesame Workshop in European markets. While the three are interesting cases, they are all European examples. As of 2024, Sesame Workshop reports that they do work in 150 countries, so it would have been interesting to see Asian or African case studies examined in this book or at least a focus on the global dimension of expansion of the program.[74] Jensen concludes her work by noting how a positive reputation benefitted *Sesame Street* and the ways in which

[70] Helle Strandgaard Jensen, *Sesame Street: A Transnational History* (Oxford University Press, 2023), 11.
[71] Jensen, *Sesame Street*, 53.
[72] Jensen, *Sesame Street*, 59.
[73] Jensen, *Sesame Street*, 81-4.
[74] Sesame Workshop, "Where We Work," SesameWorkshop.org.

Sesame Workshop used and manipulated their reputation to fit its success narrative.[75] Jensen continues by criticizing Sesame Workshop for their initial reluctance to adapt to local needs, as they clashed with their brand and goals, and maintained their role as a vehicle of American soft power.[76] What separates Jensen's work on *Sesame Street* from many others is that she does not shy away from necessary criticisms of the show and the business practices that have affected international productions, specifically. Her engagement with archival material creates a unique perspective on the not-for-profit corporation and its business model.

Diversity and Visibility on Screen

According to Lloyd Morrisett and Joan Ganz Cooney, the goal of *Sesame Street* was always to create a program for underserved communities. In a 1998 interview with Cooney, quoted in *Smithsonian Magazine*, after working in depth with Head Start, she "bec[a]me absolutely involved intellectually and spiritually with the Civil Rights Movement and with the educational deficit that poverty created."[77] Morrisett held similar views, as he too wanted to bridge the gaps that created educational disadvantages for minority and poor children but was upset that attempts to do so never reached many children.[78] The people and the settings of *Sesame Street* were created in a way to promote visibility and diversity, which was praised in various publications, like *Ebony*.[79]

The Sesame Workshop intended to diversify those who were pictured on the program, one element that concerned race. According to Tony Geiss, a former writer for *Sesame Street,* the diverse human cast was created in response to the

[75] Jensen, *Sesame Street*, 203.
[76] Jensen, *Sesame Street*, 204-5, 8.
[77] Bryan Greene, "The Unmistakable Black Roots of 'Sesame Street,'" *Smithsonian Magazine*, November 7, 2019.
[78] Anna Palmer, "The 'Street' That Changed Everything," *Monitor on Psychology* 34, no. 9 (October 2003): 90.
[79] *Ebony*, "A Toddle Down to Sesame Street," *Ebony*, January 1970, 36-9.

goals originally set out by the Carnegie Corporation: to serve underprivileged and underrepresented children.[80] Compared to the studies of children's programming in the sixties and seventies conducted by Kearney and Levine, it is clear how innovative the goals of the Workshop were. The original cast of *Sesame Street* featured a primarily African American human cast, containing positive role models for both girls and boys, with each adult being distinctive and embodying a specific characteristic.[81] As Loretta Long put it in a 2004 interview, "None of us were the 'norm.' It wasn't *Dick and Jane's* old neighborhood… and that intrigued me […] we didn't have words for diversity, we were just doing the show."[82] To the cast members, their diversity in age, race, and religion set them apart from other programs at the time, which was important to them. Sonia Manzano recounted the first time she saw the show, saying she felt like it was her street and her neighborhood and that she was "mesmerized" because there were "no people of color on television" at the time "and if they were, they certainly weren't nice like [the various characters in the cast]." [83] The inclusion of actors with different racial backgrounds, like Manzano and Emilio Delgado, was done in direct response to comments by the Hispanic community. The action taken by Sesame Workshop to respond to community input highlighted how community driven and people-focused the show was. [84] Manzano recounts John Stone saying "We just want you to be yourself […] we want the kid on the Lower East Side to look at you and say 'that's me. I'm just like her.'" Realizing that she was cast to be her authentic self was an important thing to Manzano—the authenticity felt organic, as the show

[80] Morrisett, interview by Herman.
[81] Gerald S. Lesser, *Children and Television: Lessons From Sesame Street* (Vintage Books, 1974), 125.
[82] Loretta Long, interview by Karen Herman, *The Television Academy Foundation*, July 21, 2004.
[83] Manzano, interview by Herman.
[84] Manzano, interview by Herman.

portrayed people you could meet on the street, not idealized versions of people.[85]

Loretta Long's 1973 dissertation centers on how *Sesame Street* could be used as an early educational tool and how it helps to combat systematic educational racism.[86] Long mentions both the primary and subtextual elements of the program that are used to foster diversity. The subtextual messages of the show were modeled after what Long refers to as the "Hidden Curriculum," which Long explains that it "seeks to bolster the Black and minority child's self-respect and to portray the multi-ethnic, multi-cultural world into which both majority and minority child are growing."[87] Long's arguments about race in relation to education highlight the systematic blockades that there were for children of color to access the same type of education as white children, saying that "many ghetto parents, however, held firmly in the grip of racism, under-employed or unemployed, are inadequately trained and in many cases feel incapable of being a positive educational force in their children's lives."[88] Additionally, she argued that schools were not adequately equipped to meet the specific needs of inner-city children.[89] Long notes that the racist structure of the educational system present in America perpetuates racist ideology, purposefully under-educating minorities and people of lower socio-economic groups, making these children second-class citizens.[90] Long argues for *Sesame Street* as an early educational force that combats this system by creating a show that crossed socio-economic and racial boundaries, affecting children positively the more they watched the show.[91] More importantly, Long explores *Sesame*

[85] Manzano, interview by Herman.
[86] Loretta Long, "Sesame Street: A Space Age Approach to Education for Space Age Children" (PhD diss., Graduate School of the University of Massachusetts, August 1973), iv.
[87] Long, "Sesame Street," vii.
[88] Long "Sesame Street," 38.
[89] Long "Sesame Street," 38.
[90] Long "Sesame Street," 43.
[91] Long, "Sesame Street," 59.

Street's "Hidden Curriculum," which focuses on three main goals: 1. Raising Self Image; 2. Racial Tolerance; and 3. Teachers' Attitudes.[92] She argues that this type of education is what separates *Sesame Street* from other programs and that the messages from this curriculum truly helped to boost children's self-esteem.[93] By highlighting what had separated the show from other programming and other early start education programs, Long created a convincing argument as to why *Sesame Street* was and still is an effective educational tool, especially for disadvantaged children, and in turn highlights a revolution in education and children's media.

Rosentene B. Purnell discusses the importance of language in a teaching setting and how this relates to diversity.[94] This idea of "linguistic colonialism" in Purnell's discussions affects the ways in which educators evaluate students' work and assign judgements.[95] Purnell argues that biases against certain dialects and accents is a subtle extension of ethnocentrism that highlights cultural mobility.[96] This, in turn, limits revolutionary impact since it encourages conformity as opposed to individuality.

The initial goals of *Sesame Street* emphasized ideas of diversity and inclusion in their mission statement, which was reflected in the characters on The Street, although not always successfully. A Muppet character example of this was "Roosevelt Franklin" and his mother. Long goes into great detail regarding the care and active involvement the cast had in creating a believable character.[97] The character's ethnic identity was an important part of the show, as displayed through his use of Black English and his mannerisms.[98] Long emphasizes, "The most important thing about Roosevelt is

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[92] Long, "Sesame Street," 68.
[93] Long, "Sesame Street," 72.
[94] Rosentene B. Purnell, "Teaching Them to Curse: Racial Bias in Language, Pedagogy and Practices," *Phylon* 43, no. 3 (1982): 231–41.
[95] Purnell, "Teaching Them to Curse," 239.
[96] Purnell, "Teaching Them to Curse," 239.
[97] Long, "Sesame Street," 95.
[98] Long, "Sesame Street," 95.

that always knows the correct answer, whether he talks in standard or nonstandard English," highlighting to a child that even if they did not speak using standard English, they could still be smart, which, as Purnell emphasized, was often not what the practice was in schools.[99] However, as Purnell suggests, some parents wrote in criticizing the presence and actions of characters of color, emphasizing whiteness as "normal."[100] As the show was created primarily for a non-white audience, according to Morrisett, the idea of presenting whiteness as the default went against the idea of the program, meaning certain parents did not understand the messaging of the program.[101] By empowering a marginalized group on screen and not forcing people to conform to the white standard, Long highlighted that *Sesame Street* was revolutionary in the sense that it uplifted minority groups and put them in a position of prominence and power.

The aforementioned works highlight several critical aspects of *Sesame Street's* success; however, they are generally examined in a vacuum. As such, by examining the key aspects of *Sesame Street's* productions together, rather than removing them from the greater context, the media and educational revolutions propelled by *Sesame Street* are much easier to understand.

The presentation of women on *Sesame Street* was also groundbreaking, as there were several women in working-class positions. Behind the scenes on *Sesame Street,* there were plenty of women in prominent positions, with Cooney being the face of the corporation, the Vice President was a woman, and the show's lawyer was a woman. However, the women on the show did not receive this status initially.[102] Long recounted that thanks to statistics brought forth by the National Association of Women, she realized that her character was being marginalized because she was a woman,

[99] Long, "Sesame Street," 95.
[100] Pernell, "Teaching Them to Curse," 240; and Long, "Sesame Street," 96-8.
[101] Morrisett, interview by Herman.
[102] Long, interview by Herman.

not because of her race. Due to this conversation, "Susan" was allowed to work as a nurse in the show.[103] Long also notes that her character, "Susan," being married to the character of "Gordon" was unusual for the time, as there were few, if any, black married couples on television at the time. Moreover, she was put in a position of power as "Susan" and "Gordon" were landlords on the Street.[104] Manzano reflected on her character's evolution as well, from bookshop worker, to worker in the Fix-It Shop, to part owner of the shop.[105] By showing women in these positions, *Sesame Street* managed to highlight the realities of women's experiences and empower them in on-screen roles.

One subject discussed in detail is the importance of gender equality in various *Sesame* programs—specifically those in Egypt and Palestine.[106] Charolette F. Cole and June H. Lee discuss the messages of respect and inclusion in these shows, pointing out female Muppet characters and educational goals employed to promote ideas of gender equality.[107] Although their collection of essays itself does not have a conclusion, they put forth a clear theme and message. The wide net cast by this work emphasizes the positive educational and moral impact *Sesame Street* has had on global communities, with little criticism. More importantly, by highlighting the experiences of women and girls to a global audience, it puts the role of women at the forefront, emphasizing them as potential actors in revolutions.

Further into the show's development, the human cast of the show expanded, and people with disabilities began to be represented. For example, children in the cast like Tarah Schaeffer, a girl in a wheelchair, appeared in 1978.[108] As for the adult members of the cast, "Linda," played by Linda Bove, is deaf and signed on the show, appearing in episodes

[103] Long, interview by Herman.
[104] Long, interview by Herman.
[105] Manzano, interview by Herman.
[106] Cole and Lee, *The Sesame Effect*, 135.
[107] Cole and Lee, *The Sesame Effect*, 137-140.
[108] *Sesame Street*, season 25, episode 3138, aired November 24, 1993.

from 1971 through 2002.[109] Colin Barnes noted in a study conducted for the British Council of Organizations of Disabled People, that there were few positive representations of people with disabilities in media. Most commonly, Barnes noted, they were demonized, shown as violent, a burden, or a spectacle.[110] Yet, the ways in which *Sesame Street* portrayed people with disabilities with respect denotes a positive shift in how disabilities were represented in media.

In 2021, *Sesame Street* aired an episode entitled "Family Day," in which the people living on the Street held a Family Day celebration and in turn, showcase the different families that people have. In this episode, human characters, "Dave" and "Frank," are shown to be two men, happily married, with a daughter.[111] The episode, written in part by cast member Alan Murokawa, was praised by the Gay and Lesbian Alliance Against Defamation (GLAAD) President and CEO Sarah Kate Ellis on Twitter saying the episode "sends the simple and important message that families come in all forms and that love and acceptance are always the most important ingredients in a family."[112] The episode would later win a GLAAD Award for Outstanding Children's Programming in 2022 for its representation of queer identities.[113]

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[109] John S. Schuchman, *Hollywood Speaks: Deafness and the Film Entertainment Industry* (University of Illinois Press, 1988): 138; and *Sesame Street*, season 35, episode 4081, aired May 7, 2004.

[110] Colin Barnes, *Disabling Imagery and the Media: An Exploration of the Principles or Media Representations of Disabled People* (British Council of Organisations of Disabled People/Ryburn Publishing, 1992).

[111] Sesame Street, "Sesame Street: Family Day | Full Street Story," June 17, 2021.

[112] Sarah Kate Ellis (@sarahkateellis), "The 'Family Day' episode of Sesame Street sends the simple and important message…" Twitter, June 18, 2021.

[113] "33RD Annual GLAAD Media Awards in NYC Recipients Include: Pose, Lil Nas X, Today (NBC), Power Rangers: Dino Fury, Sesame Street, Lily Rose, Associated Press, Jonathan Capehart, Dawn Ennis, Broadway's Company, Thoughts of a Colored Man, VICE News and More | GLAAD," GLAAD, May 24, 2023.

In more recent years, the puppet cast has expanded to showcase child characters with more diverse backgrounds and life experiences that have more long-term roles on the show, as opposed to being infrequent guest characters. New Muppets were created to showcase real experiences for children in a safe way that was not present for younger viewers before. These new Muppet characters fall into three categories of representation: racial representation, disability representation, and difficult life experiences.

Muppets such as "Kami" and "Ameera" represent children Muppet characters with disabilities. To start, "Kami," introduced in 2002 on *Takalani Sesame*, the South African co-production of *Sesame Street*, is the first HIV-positive Muppet. Her existence has been used to educate children about living with HIV, and has been utilized by UNICEF to highlight issues of illiteracy, abuse, and disability.[114] According to United Nations statistics from 2002, the year when UNICEF began using "Kami" for education, "800,000 children under age 15 became HIV-positive," and 32% of orphans in sub-Saharan Africa had their parents pass away due to HIV/AIDS.[115] Because "Kami" was a character with the disease, she was able to show children that they were not experiencing this alone. She was able to educate them about their condition and show that others should not be afraid. These statistics highlight the importance of having an HIV-positive character on *Takalani Sesame* and why showcasing these experiences matters to young children.

"Ameera," a character on *Ahlan Simsim*, the Arabic co-production, has a spinal-cord injury and also highlights the experiences of young children experiencing humanitarian crises.[116] Ameera uses mobility aids such as forearm crutches

[114] "UN Children's Fund Names HIV-positive Muppet 'children's Champion,'" UN News, November 24, 2003.

[115] "UN Children's Fund Names HIV-Positive Muppet 'Children's Champion.'"

[116] Sesame Workshop, "Sesame Workshop Debuts New Muppet as Part of Initiative Supporting Children Affected by Conflict and Crisis," March 22, 2023.

and a wheelchair to get around. When her design was discussed, Scott Cameron, Head of International Production at Sesame Workshop said, "Ameera was in development for over two years and was designed with the guidance of inclusion advisors who helped ensure that her identity, movements, and equipment were representational." [117] Although "Ameera" uses a basic, folding frame wheelchair, which is the wrong one for her specific needs, to Sesame Workshop and UNICEF, this wheelchair represents the realities of many families who have been displaced and are living in host communities or refugee camps.[118] They believe that it is important to highlight the realities of life, rather than something idealized related to the accessibility of assistive technology, and that hopefully "Ameera's" representation will help to bring awareness and help foster change to meet the appropriate needs of children with disabilities.[119] By creating these characters, Sesame Workshop has acknowledged the issues faced by many minority groups and worked with them to have their stories be heard by a wider audience. In doing so, they have started a shift in the norms for the kinds of stories seen in children's media, altering the content shown to children.

Muppets that were created in recent years to promote racial diversity and visibility are "Wesley Walker," "TJ," "Ji-Young," "Noor Yasmin" and "Aziz." "Wesley Walker," "Ji-Young," and "TJ" are human Muppet characters introduced to *Sesame Street* in 2021, 2022, and 2023, respectively. As part of efforts to increase racial literacy, these characters introduced children to different cultures and ideas.[120] Having

[117] Sesame Workshop, "Sesame Workshop Debuts New Muppet as Part of Initiative Supporting Children Affected by Conflict and Crisis."

[118] Michael J. Nyenhuis and Sherrie Westin, "Opinion: Why Ameera Is a Muppet with a Wheelchair That Doesn't Fit," CNN, November 11, 2022.

[119] Nyenhuis and Westin, "Opinion: Why Ameera Is a Muppet."

[120] Dana Farrington, "This 'Sesame Street' Kid Is Now the Muppeteer for Its First Asian American Character," NPR, November 25, 2021; Suzanne Nuyen, "'Sesame Street' Introduces TJ, the Show's First

puppets that explicitly represented people of color shifted the Hidden Curriculum idea of having the various monster puppets be different colors, to having this diversity be represented in human muppets too.[121] "Noor Yasmin" and "Aziz" are Sesame Workshop's first Rohingya Muppets created as part of their "Play to Learn" humanitarian initiative.[122] Created using the input of Rohingya children and families, researchers asked the children which designs they liked the most in order to create characters that they felt comfortable with and that they related to them.[123] Sherrie Westin, President of Social Impact at Sesame Workshop explained that

Noor and Aziz are at the heart of their efforts to bring early education and learning through play to children and caregivers affected by the Rohingya refugee crisis, who have been impacted tremendously by the dual crises of displacement and the COVID-19 pandemic, highlighting the importance of visibility in children's' programming.[124] What all of these human muppets showcase is that being able to look to the screen and see yourself reflected in the media you are consuming has a strong impact on the lives and development of children.

Muppet characters portrayed as having experienced hardships include those such as "Karli," "Lily," and "Alex." "Karli" is a Muppet in the foster care system whose mother is battling addiction. She was introduced because Sherrie Westin, President of Social Impact and Philanthropy for

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Filipino American Muppet," NPR, May 11, 2023; Gene Seymour, "Two New Black 'sesame Street' Characters Explain Racial Difference to Children," CNN, March 26, 2021.

[121] Long, interview by Herman.

[122] Sesame Workshop, "Sesame Workshop Debuts First-Ever Rohingya Muppets as Part of 'Play to Learn' Humanitarian Initiative," March 22, 2023.

[123] "Sesame Street Unveils Rohingya Muppets to Help Kids Overcome 'Unthinkable Horrors,'" NBC News, December 17, 2020.

[124] Sesame Workshop, "Sesame Workshop Debuts First-Ever Rohingya Muppets as Part of 'Play to Learn' Humanitarian Initiative."

Sesame Workshop, said they heard from parents that there are few "resources…for some of the traumatic events that children are facing."[125] "Karli's" story has been used to educate children on what addiction is and provide them with ways to express their emotions healthily regarding the situation.[126] According to 2022 statistics from the Department of Health and Human Services, "More than 21 million children lived with a parent misusing substances, and more than two million lived with a parent who had a [substance use disorder]."[127] "Lily" is a muppet who is dealing with hunger and family homelessness, and "Alex" is a muppet whose father is incarcerated.[128] The goals of presenting children with these difficult experiences, providing those in these situations with helpful information and ways to cope, while also creating educational materials and handouts for young children not experiencing these issues help to bring awareness and foster understanding in young kids. Many children's programs still shy away from these issues, which is why it is so groundbreaking when *Sesame Street* presents the world with a child in a difficult situation. While this goes against what Cooney originally said about their target audience having "enough conflict in their lives," these characters help to further the ideas of treating others with kindness and respect that *Sesame Street* champions.[129] While it should not be, presenting children with stories of people experiencing hardships is groundbreaking.

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[125] Derrick Bryson Taylor, "Karli on 'Sesame Street' Reveals Her Mother's Addiction Battle," *The New York Times*, October 10, 2019.

[126] Sesame Workshop, "Parental Addiction," July 20, 2023.

[127] Robin Ghertner, *National and State Estimates of Children with Parents Using Substances, 2015-2019* (US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, 2022).

[128] Taylor, "Karli on 'Sesame Street' Reveals Her Mother's Addiction Battle."

[129] "Television: Who's Afraid of Big, Bad TV?" Time Magazine, November 23, 1970, 9-10.

Charolette F. Cole and June H. Lee's research compilation focuses on the various international co-productions of *Sesame Street.* It highlighted the specific cultural and educational needs met by these programs, focusing specifically on productions in low- and middle-income countries around the globe.[130] Directly contrasting the critical outlook Helle Strandgaard Jensen had regarding international co-productions of *Sesame Street*, this book is first and foremost positive. The book's primary focus is on the theory that these projects are based on and how the shows work to meet different educational needs.[131] The topics of discussion in these chapters ranges from multimedia engagement, such as with books and apps, to improving access to educational content.[132] The argument created by this collection is that Sesame Workshop's work around the world is truly beneficial, and as such, is revolutionary because of the wide impact it has had on children globally.

However, the representation on *Sesame Street* was not always met with positive responses. This was especially true in the early years of the program, but there has been some controversy. This is especially true regarding "Roosevelt Franklin" and "Julia." As mentioned before, "Roosevelt Franklin" was a muppet whose racial and ethnic identity was important to the character as a whole.[133] While he was popular among cast members, staff, and some audience members, a large number of people complained about "Roosevelt Franklin's" behavior and mannerisms in the 1970s. Marylin Agrelo, director of the *Street Gang* documentary said in an interview, "[Black parents] didn't want this stereotype to be present for their kids to emulate. They wanted their kids to be on equal footing. You can see the argument on both sides of that really: it's a very complex

[130] Charlotte F. Cole and June H. Lee, *The Sesame Effect: The Global Impact of the Longest Street in the World* (Routledge, 2016), 3.
[131] Cole and Lee, *The Sesame Effect*, *4*.
[132] Cole and Lee, *The Sesame Effect*, 71, 92.
[133] Long, "Sesame Street," 83-4.

issue […] and it's one we're still grappling with today."[134] As a result, the character was phased out of the show, making *Sesame Street's* first black muppet an unsuccessful experiment.

The controversy surrounding "Julia," an autistic Muppet, however, has less to do with the character herself, and more so Sesame Workshop's decision to work with Autism Speaks. In 2015, "Julia" was developed with consultation from the Autistic Self Advocacy Network (ASAN), which resulted in her being a neurodivergent character that is a positive role model for children and adults.[135] However, when Sesame Workshop began doing their autism outreach programming with Autism Speaks, ASAN decided to permanently cut ties with them.[136] In a 2019 statement, ASAN explained that Sesame Workshop's decision to work with Autism Speaks was harmful to the autistic community, citing the practices of the organization which, among other things, "instructs parents to go through the five stages of grief after learning that their child is autistic, as they would if the child had died."[137] ASAN argued that Sesame Workshop's "See Amazing" initiative had the great potential to teach families that their autistic children are deserving of love, but now the initiative can be a vehicle for Autism Speaks to spread their harmful ideology.[138] ASAN's statement concludes by saying that *Sesame Street* can promote harmful ideas with this partnership and that they should try to commit to "producing and promoting only content which increases the inclusion, acceptance, and well-being of autistic children."[139]

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[134] Ethan Alter, "New 'Sesame Street' Documentary Reveals the Story behind Roosevelt Franklin, the Show's First Black Muppet," Yahoo!, May 7, 2021.

[135] Lindsey Bever, "How a 'Sesame Street' Muppet Became Embroiled in a Controversy Over Autism," *Washington Post*, September 20, 2019.

[136] "ASAN Has Ended Partnership With Sesame Street," Autistic Self Advocacy Network, August 5, 2019.

[137] "ASAN Has Ended Partnership."

[138] "ASAN Has Ended Partnership."

[139] "ASAN Has Ended Partnership."

Possibly one of the most important parts of *Sesame Street* and the way it promoted diversity was through the "Hidden Curriculum" and the messaging behind it in the music and subtext that helped to push ideas of racial acceptance all while learning to embrace differences. Joe Raposo's "Bein' Green" showcases these values and goals. The song, performed by Jim Henson as "Kermit the Frog" is a somber lament by "Kermit" singing about his coloration and how difficult being green has made his life.[140] But the song resolves as Kermit sings: "When green is all there is to be / It could make you wonder why / But, why wonder? Why wonder? / I'm green and it'll do fine / It's beautiful, and I think it's what I want to be"[141] To many listeners, especially people of color, the song resonated. According to journalist Danyel Smith, her mother told her to imagine that "Kermit" was saying "black" instead of "green," emphasizing the message about race and acceptance embedded in the song.[142]

The idea of Kermit having difficulty with the color of his skin, and ultimately learning to find beauty in his experience and identity, is not unlike what many people of color experience growing up. The ideas outlined within *Sesame Street*'s "Hidden Curriculum" include raising children's self-image and racial tolerance, which is said by Long to boost a child's learning in general.[143] Long goes on to say "affective learning," which is embedded in this "Hidden Curriculum," "is imperative in order to help overcome the psychologically crippling effects of racism, and instill in the child the courage needed to attempt to achieve on a cognitive level."[144] That is to say, the lessons shown through a song like "Bein' Green" are just as important as the explicit messaging on the show. While the messaging may seem explicit to parents or adults, children around the age of three—the target audience for the

[140] Sesame Street, "Sesame Street: It's Not Easy Being Green (Kermit's Song)," December 11, 2008.
[141] Sesame Street, "Sesame Street: It's Not Easy."
[142] "The Greatest TV Moments: Sesame Street Music A-Z (2000)," November 21, 2000, Internet Archive.
[143] Long, "Sesame Street," 68.
[144] Long, "Sesame Street," 69.

program—do not understand abstract concept association until around age twelve, according to Jean Piaget's theory of cognitive development.[145] As such, young children would have been able to make the connections to their emotions at a young age, but grow to understand the meaning behind the song as they grow older, highlighting the long-term impact of something as simple as a song. The cultural significance of the song highlights the impact the song has had on many generations of kids and adults alike, which shows how *Sesame Street* has affected the American public in more ways than we realize.

The efforts that the Sesame Workshop have gone through to create a diverse program for children since the inception of the program is clear. Most of the time, these efforts are regarded positively and have had positive impacts. However, reactions to characters such as "Roosevelt Franklin" and "Julia" highlight how the choices of Sesame Workshop do not always end the way that they intend to. The diversity on *Sesame Street* highlights a radical shift as to what was seen on television and what serves as a model for what can still be done on children's programming. Shows like *Sesame Street* opened many doors for diversity and visibility in television and helped normalize it, starting a paradigm shift related to those who are represented on screen.

Public Response

When *Sesame Street* was put on the air, the audience and critics had mixed opinions on the effectiveness and staying power of the program. In those early years, the experimental *Sesame Street* was such a new and radical idea that many people were still hesitant to support it, but others saw promise in the program. Reviewers of the show can be split into three main groups: educators; child psychologists; and media reviewers. The opinions of all three help to create a full picture as to what the general public and professionals

[145] Samuel E. Wood, Denise Boyd, and Ellen Green Wood, *Mastering the World of Psychology*, 5th ed. (Pearson, 2014), 255.

thought of the show and how and why *Sesame Street* has adapted and changed over the years.

Lloyd Morrisett and Joan Ganz Cooney wanted to use visual media at home to help underserved communities receive an accessible, and affordable early start in their education.[146] However, as Lazerson, Wagener, and Shumanis suggested, it was difficult to convince a majority to adapt to this methodology. *Sesame Street* was met with mixed reviews when it first aired in 1969, with critics saying that the show was either extremely innovative and they wanted to see where it would be in a few years, or that they did not think the show or format would last or be that impactful.[147] As with any new educational methodology, as suggested by Lazerson and his colleagues, the innovation can be considered revolutionary as it breaks from the expected norms. As television had not really been used for educational children's programming prior to *Sesame Street*, their success was found in altering the ways people view and use television for education.

When *Sesame Street* initially aired, the show was met with mixed reception. In those early years, many articles were written in local papers, both in the United States and internationally about how critics and educators viewed the program. In 1970, *Time Magazine* sang the praises of the program, writing that "the program proves that it is not only the best children's show in TV history, it is one of the best parents' shows as well."[148] *Time's* positive reviews were backed up with data showing that children's skills increased by 62% and *Sesame Street* was able to reach about 7 million children a day.[149] *Time* commended the casting of the show for its diversity and the format, among other things. Still, *Time* highlighted the voices of some critics, like Bronfenbrenner, who argued the show was not realistic

[146] Morrisett, interview by Herman.
[147] "Television: Who's Afraid," 1, 5.
[148] "Television: Who's Afraid," 1.
[149] "Television: Who's Afraid," 2.

enough.[150] *Time* also emphasized how the new left called the program's educational goals surface level and claimed *Sesame Street* was trying to replace teachers with the program.[151] Cooney's response, published in the same article, served to quell these ideas in the eyes of *Time*, saying, "TV has a very important role to play in education. Still, it's just a big cold box, and just can't replace a loving teacher who cares about a child."[152] She went on to say, "Our target kids have enough conflict in their lives. We want our hosts to be an integrated group who treat each other with kindness and respect."[153]

Other reviews, like those in the *New York Times* in 1969 expressed interest in the program but had some reservations regarding the novelty of the program and if it would last or remain a fad.[154] As has been shown, the program has been a world-renowned success, with new seasons still in production as of 2024 and around sixty international productions, with Sesame Workshop doing work in 150 countries.[155]

In the introductory years, reviews from psychologists seem to have been somewhat negative. As mentioned before, psychologist Urie Bronfenbrenner said the lack of complexities with the adult characters and their propensity to move away from "the old, the ugly or the unwanted" made the show too polished for children and did not expose them to the realities of the world.[156] Additionally, Yale psychologists in the 1970s said the pacing distorted children's worldview.[157] However, other psychologists over the years have argued the opposite. Psychologists Daniel R. Anderson and Stephen R. Levin found from their research with *Sesame Street* in 1976 that the fast pacing was good for

[150] "Television: Who's Afraid," 5.
[151] "Television: Who's Afraid," 5.
[152] "Television: Who's Afraid," 5.
[153] "Television: Who's Afraid," 5.
[154] Mary Jo Murphy, "'Sesame Street' When it Started," *The New York Times*, September 4, 2015.
[155] Sesame Workshop, "Where We Work," SesameWorkshop.org.
[156] "Television: Who's Afraid," 5.
[157] Hechinger, "About Education."

keeping the attention of young children, and that this is most effective with the musical elements of the show.[158]

In more recent years, researchers like Koeun Choi, Assistant Professor of Human Development and Family Science at Virginia Polytechnic Institute and State University, have written positively about the program, highlighting the influence it has had on other educational programs and research methodologies.[159] More specifically, studies like those published by Dina L.G. Borzekowski, Darius Singpurwalla, Deepti Mehrotra, and Donna Howard in 2019 examine the effectiveness of co-productions like *Galli Galli Sim Sim*, concluding that the program has significant, positive effects on early childhood development areas, like literacy, numeracy, socio-emotional, and health.[160] These differences in opinion and findings showcase how attitudes towards *Sesame Street* have changed over the years and how practices regarding research have acclimated to the paradigm shift. This emphasizes a paradigm shift in children's education, as now *Sesame Street* and programs like it are being analyzed more seriously and serve as the subject of vast amounts of research projects.

The opinions of educators and researchers have followed a similar path—with many questioning the program at the start, to people embracing what *Sesame Street* has done for educational programming. Recently, researchers like James Alex Bonus and Marie-Louise Mares studied how children can apply concepts that they learn from *Sesame Street* to real life and look at the program's positive effects on children. Work like this shows that attitudes towards *Sesame Street* in the present are primarily positive, with research generally finding positive results from the influence of the show.

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[158] Daniel R. Anderson and Stephen R. Levin, "Young Children's Attention to 'Sesame Street,'" *Child Development* 47, no. 3 (1976): 806–11.

[159] Choi, "*Sesame Street*."

[160] Dina L.G. Borzekowski et al., "The Impact of *Galli Galli Sim Sim* on Indian Preschoolers," *Journal of Applied Developmental Psychology* 64 (July 2019).

In 1970, *Time Magazine* described people's early relationship to *Sesame Street* using Plato's Allegory of the Cave, an appropriate comparison to resistance to the paradigm shift.[161] While they reference Plato in regards child viewers, it seems appropriate to apply the allegory to those who were making children's shows before *Sesame Street*. Showrunners were stuck in the proverbial cave, creating television for children in which the purpose was to be attention grabbing, but Cooney and Morrisett broke away from that idea as they created a program with goals deeper than the surface level goal of entertainment. Instead, they created a diverse and educational program specifically intended to target underprivileged children. However, it took a while for other companies to follow suit and create their own programs, as the experiment needed to be proven effective first.

Where the general public is concerned, topics such as staying power and content often encompassed their reviews. For example, an early review in the *New York Times* questioned if the show would just be a fad, or exist long-term.[162] However, the opinions of families seemed to be very divided on the program, especially regarding the racial elements in the program. In her dissertation, Loretta Long reprinted many of the letters *Sesame Street* received from families about the program from the first several seasons of the show. She showcased letters from children saying that they learned to accept people with different skin colors, or that it has helped them learn ideas of racial tolerance and gain confidence.[163]

Some messages from parents, reprinted by Long, were negative, with letters arguing against the message of racial diversity and tolerance, saying things like, "Since most of your viewers are not black and do not live in ghettos this is an unfair representation of life being shown to the young

[161] "Television: Who's Afraid," 9-10.
[162] Mary Jo Murphy, "'Sesame Street' When it Started," *The New York Times*, September 4, 2015.
[163] Long, "Sesame Street," 81, 74.

viewers," or that the show is repetitive, they speak too much Spanish, and insinuate that there are too many black people on the show.[164] But many adults said that the messaging against racial prejudice was important to them and thought it was important for children to be exposed to.[165] In 1970, Mississippi Public Television would not air *Sesame Street* because of its depiction of racial harmony, but parents petitioned to bring it back and even had the cast visit the area.[166] Now, *Sesame Street* is regarded as a widely influential program, beloved by many households, with its messaging of inclusion being just as important as it was when it first began airing.

Becoming "The Longest Street in the World"

Shortly after the airing of *Sesame Street*, the group was approached by producers from Brazil, Mexico, Canada, and Germany wanting programs to specifically address their nations' educational needs.[167] In a 2016 Workshop publication, they explained, "Sesame Workshop's intention is not to impose [their] American sensibilities, but to provide, instead, a framework for a series that will be created in-country by a local production team."[168] However, as explained by Jensen, Sesame Workshop was initially reluctant to adapt to local needs, as their brand was more important to them.[169] Despite the hurdles, the first co-production to fully utilize the Workshop model was Mexico's co-production, *Plaza Sésamo*, established in 1972. Twenty other productions, including those in television and radio format, were created

[164] Long "Sesame Street," 84-6.
[165] Long "Sesame Street," 89.
[166] Greene, "The Unmistakable Black Roots of 'Sesame Street.'"
[167] Charlotte F. Cole, Beth A. Richman, Susan A. McCann Brown, "The World of Sesame Street Research," in *"G" is for Growing: Thirty Years of Research on Children and Sesame Street,* ed. Shalom M. Fisch and Rosemarie T. Trugilo (LEA/Routledge, 2001), 148.
[168] Cole, Richman, and Brown, "The World of Sesame Street," 148.
[169] Jensen, *Sesame Street*, 204-5, 8.

by the early 2000s.[170] The rapid expansion of the *Sesame Street* brand globally highlights the influence of the show, as the brand continues to flourish with the newest programs airing in 2020—*Ahlan Simsim* the Arabic co-production, and 2022—*Playtime with Noor & Aziz*, the Rohingya co-production.[171]

When *Sesame Street* was initially sold abroad, it was not marketed as something to help serve underrepresented children. Instead, the primary selling point was the goal of universal education.[172] Cooney argued that because the world was so quickly becoming Americanized, it would not matter to global audiences that the social reality of Americans was represented in their program.[173] While this may have been what some countries wanted, this initial framing of the international programs feels as though it goes directly against the values of the program, as it was not representing their target audience. The initial refusal to adapt to different cultures painted the show as being blind to cultural differences, which the American show makes a point of emphasizing, as opposed to forcing their audience to think one way should be the norm. As such, the differing views on education and traditional ideas regarding television for children hindered many expansion efforts.[174] Changes in this way of thinking did not appear to be quick, as research from June H. Lee and colleagues focuses on Sesame Workshop initiatives from the early 2000s that emphasized delivering content to marginalized communities—particularly in Asia—only began in the late 1990s, with many shows being

[170] Cole, Richman, and Brown, "The World of Sesame Street," 149-53.

[171] Sesame Workshop, "New Arabic-Language Version of Sesame Street to Premiere Across the Middle East - Sesame Workshop," March 21, 2023; and Sesame Workshop, "Sesame Workshop Debuts First-Ever Rohingya Muppets as Part of 'Play to Learn' Humanitarian Initiative."

[172] Jensen, *Sesame Street*, 39.

[173] Jensen, *Sesame Street*, 39.

[174] Jensen, *Sesame Street*, 97.

produced in the late 2000s.[175] Despite the initial issues establishing the brand abroad, *Sesame Street* has become a globally recognized program, now with more explicit goals of mirroring the original values of the show in its global productions. By moving away from the initial ideas Cooney held regarding co-productions, Cole argues these shows were able to find the greatest level of success.[176] Because of the acceptance of other cultures, *Sesame Street* became a household name globally, which contributed to the impact the program has had on society.

As the original *Sesame Street* was an experiment, so too, were the various co-productions, with new variables that Sesame Workshop had to consider when creating new content for new audiences. As they learned to embrace the culture of the purchasing country, they found success abroad, altering many educational systems in the process. Moreover, the expansion of the show highlights the global success and influence of *Sesame Street*, which would not have been possible if the world did not embrace the paradigm shift that started in the United States.

Conclusion

The pathway to the creation of *Sesame Street* was a long one, with lots of sharp turns and curves. However, the efforts by the Sesame Workshop ended in the creation of a long-staying program that continues to affect children globally to this day. Now, it is more common to see educational programming for children on television, with programs like *Blue's Clues* and *Dora the Explorer* educating young children on topics such as self-esteem, problem solving, and language skills. These programs no longer just exist on public television but also on network and cable, which puts this type of content into greater focus in the eyes

[175] June H. Lee et al., "How Sesame Workshop Promotes Early Childhood Education Around the World," in *The Sesame Effect: The Global Impact of the Longest Street in the World,* ed. Charlotte F. Cole and June H. Lee (Routledge, 2016), 94.

[176] Cole, Richman, and Brown, "The World of Sesame Street," 147.

of the public. With *Sesame Street* approaching sixty years on the air, the ways in which it has forever changed the children's educational media space are clear. Not only has Sesame Workshop created a television program to educate the young masses, it has also worked to create materials to educate families on difficult topics to learn together about these experiences. This show has significant power in changing the viewpoints of children and adults alike, with their messaging reaching all over the globe. By no means is *Sesame Street* or Sesame Workshop a perfect program or organization, but the impact and change they have caused, especially for American audiences, is no doubt groundbreaking. By examining the aspects that create *Sesame Street* as a whole, a fuller picture as to why the program is innovative is visible. *Sesame Street* forever altered television and children's education in more ways than many could have considered possible in 1969.

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At the very outset of the Great Depression, a woman from Kennan, Wisconsin won the national canning contest by preserving, canning, "bottling-up," "jarring," or "putting-up," between 600 and 800 quarts of food for her home. Newspaper commentary on the event stated, "The sun of prosperity will shine on that home. The majority of men would feel safer with a wife of that kind."[1] As early as the mid-1800s, canning became the first choice for women who had to feed their families without running water or electricity, let alone a freezer. America's passion for canning has hardly waned in the twenty-first century even with all the modern conveniences, abundance of produce, and global markets. Home canned items are still found at county fairs across the country where they are judged in flavor and aesthetics, just as in times past. However, some food writers are still puzzled by the popularity of home

[1] "The Canning Champs," *The River Press*, January 1, 1930, Newspapers.com.

canning. Food writer Sara Dickerman refers to canning as a trend, stating "today's cultish hobby was yesterday's necessity."[2] Dickerman further insinuates that twenty-first century canning enthusiasts are being disingenuous when they add flare to their recipes as it does not respect the poverty of people that had to preserve their own food. That argument jells about as well as preserves without sugar. While poverty is an important element in the home canning story, it has never been the sole reason that women preserved their own food. It is unjust to assume that women in reduced circumstances ever lacked the inclination to make a beautiful, quality product. Public Humanities professor Danille Christensen argues that food writers should take care to not misunderstand the women of the past, to reduce their lives to duty and deprivation and "ignore the agency and aesthetic sophistication of people already marginalized […] by their socioeconomic status" and lack of education.[3] Beauty and necessity are not mutually exclusive, and women are and were simultaneously concerned about the beauty of their canned goods along with need.[4]

Home canning and food preservation began in the United States during the latter half of the 1800s and went on to become fully ingrained in American food culture through advancements in food science and technology and the establishment of a government department that sought to be responsive to the population they served. At the beginning of the twentieth century, foremost on the rural farmwoman's list of concerns was how to feed her family on a subsistence homestead and avoid the common food preservation nightmares of spoilage, waste, and often deadly food poisoning. Variety was also a problem as early farm tables regularly lacked fresh fruits and vegetables, and options

[2] Sara Dickerman, "Can It: At-Home Preserving Is Ridiculously Trendy," Slate, March 10, 2010.

[3] Danille Elise Christensen, "Simply Necessity?: Agency and Aesthetics in Southern Home Canning," *Southern Cultures* 21, no. 1 (Spring 2015): 18.

[4] Christensen, "Simply Necessity," 18.

dwindled when winter settled in. Rural women were at a loss about the cause of their food preservation struggles. One concerned home canner bemoaned, "With all our care and precautions a great deal of canned stuff spoils."[5] Seeing their hard work and meager supplies lost to spoilage had implications for the family beyond mere frustration. In response to general concerns over safe food preservation and to combat widespread hunger and unemployment during the Great Depression, the Bureau of Home Economics created a community canning program.

The community canning program of the 1930s has been largely overlooked by historians. [6] Perhaps this is because canning has been perceived as mundane women's work or as only being done out of necessity. Maybe canning has become so ingrained in American culture that the *how* and *why* it became that way have been taken for granted. In the scholarly discussion surrounding the foodways of the Great Depression, the focus tends to be on the overall government approach to the problem of food insecurity as opposed to specific community responses to programs, which is the focus of this research. Historian Harvey Levenstein argues

[5] United States Department of Agriculture, Office of Information, G. W. Wharton, "Report No. 105," in *Educational Needs of Farm Women,* issued March 22, 1915.

[6] Secondary sources used in this paper share few details about the community canning program or the education of women during the 1910s. The following sources discuss American Foodways, the Home Economics Movement, and the Great Depression: Mike Andrews and Yiling Zhao, "Home Economics and Women's Gateway to Science," Health and Education (American Economics Association, 2022), 1–49; Danielle Dreilinger, *The Secret History of Home Economics* (W.W. Norton, 2021); Megan J. Elias, *Stir It Up: Home Economics in American Culture* (University of Pennsylvania Press, 2008); Megan J. Elias, *Food on the Page, Cookbooks and American Culture* (University of Pennsylvania Press, 2017); Megan J. Elias, *Food in the United States, 1890-1945* (Greenwood Press, 2009); Jane Ziegelman and Andrew Coe, *A Square Meal: A Culinary History of the Great Depression* (Harper Collins Publishers, 2016); Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (University of California Press, 2003).

that there was a disconnect between the early government responses to the crisis and what was actually happening at the community level.[7] Early on, the federal government expected community, church, and private enterprise to step in, even discouraging aid groups like the Red Cross from helping, leaving others like the Salvation Army unable to keep up.[8] Food writers, Ziegelman and Coe point out, that in specific regions of the country, hunger and malnourishment among the population was causing riots.[9] Cultural historian, Megan J. Elias backs up the hunger claim in stating that the number of people suffering from malnutrition and starvation rose while town dumps were swamped with hungry folks waiting for "fresh" garbage in hopes of finding something to eat.[10] Writing about canning, Levenstein demonstrates the lack of attention given to the topic by focusing on kitchen disasters like exploding pots and melted stoves (which still happens), and adds that many women no longer had time to can anything because of a shift in the workforce due to WWII.[11] However, Christensen points out that the division of household labor has never been equal, and Southern women have always "put up the surplus," whether they worked outside the home or not.[12] With few secondary sources available, this research relies heavily on primary sources to bring together an unlikely cast of characters that worked together to implement a program that benefitted generations of American families.

This history of American canning begins in the late 1800s, where scientific advancements would bring food preservation into modernity. The pressure cooker for home use came on the market along with the Mason jar and upgrades in "tin" cans and jar sealing technology. By 1937,

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[7] Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (University of California Press, 2003), 11, 78.
[8] Levenstein, *Paradox of Plenty*, 78.
[9] Ziegelman and Coe, *A Square Meal*, 154-55.
[10] Megan J. Elias, *Food in the United States, 1890-1945* (Greenwood Press, 2009): 133.
[11] Levenstein, *Paradox of Plenty*, 78.
[12] Christensen, "Simply Necessity," 18.

Professor of Biology and Public Health Samuel C. Prescott and Professor of Food Technology Bernard E. Proctor noted in *Food Technology* that "no technological advance has exerted greater influence on the food habits of the civilized world than the development of heat treatment and the use of hermetically sealed containers for the preservation of food." [13] However, access to information about this "lifesaving technology" remained limited. Rural women, often living on isolated subsistence farms throughout the country, had little hope of improving their circumstances without some kind of broad scale intervention because opportunities to hear or learn about the latest updates in home preservation methods and upgraded supplies were limited.

Capitalizing on the early success of Southern states like Texas and Virginia with their home demonstrations and canning clubs, the Department of Home Economics pulled from the growing number of home economists to become the Bureau of Home Economics (BHE) in 1923. [14] By combining their new and expanding knowledge of food science and nutrition with federal funding they sought to teach food preservation techniques to every rural county they could reach. When the BHE found it was unable to meet the demand in person, they took to the radio with the Homemakers' Chat in 1926. By the time the Great Depression threatened the health and wellbeing of American families, the BHE was well positioned to implement a nationwide community canning program that functioned at the local level to help feed hungry Americans. By the end of the Depression, community canning centers/kitchens functioned in every state, involved every economic class, engaged communities of color, and employed men and women. This research challenges Dickerman's assertion that canning was only marketed as a way to save commercially

[13] Samuel C. Prescott and Bernard E. Proctor, *Food Technology* (McGraw-Hill Book Company, 1937), 387.

[14] Kate Adele Hill, *Home Demonstration Work in Texas* (The Naylor Company, 1958).

canned foods for solders during World Wars I and II, and that the anti-corporate message of home canning originated in the 1970s "as part of that era's homespun chic."[15] Her comment, "This fondness for handmade preserves didn't stick around,"[16] would likely make canning enthusiasts of any era cringe. American engagement in home canning has been a love affair that has continued to draw interest despite waxing and waning popularity.

This study will begin with a short examination of the early years of food preservation including the scientific and technological advancements that made home canning safe and accessible for families. Second, it will discuss the early home economics movement in contrast with male attitudes toward the education of women. It will then touch on the early actions of some Southern states, who led the way in adopting both home demonstration and community canning enterprises through "tomato canning clubs." Fourth, it will examine the role of the Department of Agriculture in the education of rural women and the creation of the Department of Home Economics that gave a home to the fledgling home economics movement. Finally, this study will examine the work of the Bureau of Home Economics (BHE), in the implementation of the national canning program established during the Great Depression, its success, and the collective benefits the program gave to rural women.

The Grass-Roots of the Canning Movement, 1900-1933

The Science of Food Preservation

Before the scientific method was applied to canning in 1915 by home economists, newspapers commonly ran with headlines about victims from food poisoning and how to avoid spoiled food. Ptomaine, an antiquated blanket term for

[15] Dickerman, "Can It."
[16] Dickerman, "Can It."

what science now defines as salmonella, E. coli, and listeria, was the typical diagnosis given by doctors that often resulted in hospitalization or even death.[17] In a patent filed by John Mason in 1858, he described a reusable jar that could be mass produced and hermetically sealed.[18] Originally manufactured by the Ball Corporation and now considered an iconic symbol of Americana, the Mason canning jar hit store shelves and catalogs in the 1880s and marked a leap forward for home canning. Additionally, "tin" technology went through several upgrades by the early 1900s. Since both containers would be utilized in the BHE sponsored canning centers, it was important that all participants understood their respective limitations. Although prone to breakage, jars were still ideal for sauces and highly acidic foods and mixes while "cans heat[ed] through more quickly and cooled in less time," in addition to being light and easy to handle.[19] The Homemakers' Chat regularly handled questions about which cans were best for different types of foods. In educational materials used by home economics students and home demonstration agents, the cans were categorized by their enamels, "'R' – fruit" or 'sanitary' and 'C' – 'Corn.'"[20] For example, in canning red acid berries like strawberries and cherries, cans with a special enamel lining called "R" prevent "a harmless chemical reaction that causes the fruit to lose […] color."[21] "R" cans were also stated to be essential in

[17] "Home Safety Hints, Food Poisoning Can Be Avoided," *New Castle News*, February 16, 1925, 17; *Dixon Evening Telegraph*, Jan 12, 1925, 9.

[18] John L. Mason, "Improvement in Screw-Neck Bottles," US Patent 22,186, United States Patent and Trademark Office, November 30, 1858; John L. Mason, "Mold for Making Bottles," US patent 22,129, United States Patent and Trademark Office, November 23, 1858.

[19] Jessie W. Harris and Elisabeth Lacey Speer, *Everyday Foods* (The Riverside Press, 1933), 375.

[20] M.G. Kains, *Modern Book of Home Canning* (Greenburg Publisher Inc., 1938), 23.

[21] United States Department of Agriculture, Bureau of Home Economics, *Housekeepers' Chat*, "Canning Questions," aired July 14, 1933.

canning "pumpkins, squash, or beets that corrode" ordinary tin cans.[22]

Finally, at the turn of the 20th century, the lynchpin in food preservation hit the American consumer market. Originally invented in 1679 by Denis Papin, the pressure cooker would wholly transform food preservation. However, it would take almost 250 years of innovation to bring this contraption into the family kitchen. In 1905, Northwestern Steel and Iron Works (now Presto) began manufacturing large fifty-gallon "canner retorts" for commercial canneries. Thirty-gallon canners quickly followed for hotel use and by 1915, the company was selling ten-gallon models suitable for home canning needs.[23] The availability of home sized pressure cookers aligned with the Department of Agriculture's announcement in 1917 that pressure canning was the only safe method for canning low-acid and thick foods like vegetables, pumpkin, meat, and mixed soups without fear of spoilage. These scientific advancements in food preservation coupled with new equipment requirements further prompted the question of how to disseminate information and educate women at the national level.

Home Economics

Attitudes towards the education of women, especially from men, were (and still are) contradictory across the United States. There were plenty of men and women that were opposed to the idea of education for women in the late 1800s. Dr. Anita Hill pointed to a possible generational divide writing, "Early resentment among some men folk against too much 'book learning' for women, and against an 'outsider' telling wives how to do their work," was common during the first two decades of the 20th century.[24] However, when it came to women encroaching on what was understood as the male sphere of influence, the situation was

[22] Harris and Speer, *Everyday Foods,* 376.
[23] "Company History," Presto.
[24] Hill, *Home Demonstration Work in Texas*, 7.

more nuanced. Nowadays the word science is often applied to a myriad of culinary endeavors, like the science of breadmaking or winemaking, but this simply was not the reality in the early 1900s. As a result, women setting up new programs or looking for advanced educational opportunities encountered both considerable opposition and support for their advancement.

The post-Civil War period offered what historian Dreilinger describes as an "unprecedented expansion of education for women," and it was during this time that the seeds of the home economics movement were planted. [25] A common misconception about the home economics movement is that it was designed to relegate women to domestic chores. Elias debunks this myth stating that it is wrong to view the home economics movement as "created by men to keep women in the kitchen."[26] Rather, the entire home economics movement was largely run by and for the benefit of women.[27] Home economists sought to push back against the prevailing attitudes about education for women by giving them a brand of education that would bring women into the higher education. Preferring to be "shelved [in a library] with sociology and not needle point" [28] and worrying that "wasted labor kept American women shackled to the past," a group of nine women (and one man) including Ellen Richards, the first woman to attend the Massachusetts Institute of Technology (MIT), worked for a decade hammering out a home economics program for schools and colleges beginning in 1899. [29] Forward-thinking men like Melvil Dewey and Booker T. Washington supported the effort and participated in meetings. The support of C. F. Langworthy, from the US Department of Agriculture, came in 1905 and would be a catalyst in the later development of

[25] Danielle Dreilinger, *The Secret History of Home Economics* (W.W. Norton, 2021), 12.
[26] Elias, *Stir It Up*, 63.
[27] Elias, *Stir It Up*, 63.
[28] Dreilinger, *The Secret History*, 28.
[29] Elias, *Stir It Up*, 11.

the Department of Home Economics. In its earliest days, the goal of the home economics program was to bring science into the home and kitchen, going far beyond classes in breadmaking and sewing clothes. Elias found there is "no evidence to suggest that […] home economists simplified the scientific content of their courses," and the field of study became a "back door" for women to pursue careers in science, technology, engineering and mathematics fields (STEM).[30]

The movement was not without its male critics. For example, when the first home economics courses were being established at Cornell University in 1915, the women tasked with creating the curriculum encountered confusion about whether the goal was to teach women how to cook and sew buttons or something else entirely.[31] Home economics was seen as either too practical or too abstract and those outside the field were either unable or unwilling to see domestic science as real science. There was often friction between women who had serious scientific questions and male professors who felt it was beneath them to explain why bacteria on a dishcloth might be problematic beyond "just tell them it [a clean dishcloth] will look nicer."[32] Alternately, when Isabel Bevier joined the faculty at the University of Illinois, the university president supported and encouraged her to maintain the scientific rigor, knowing that the battle for acceptance was being fought in academia rather than the wider public.[33]

The Southern Canning Program

Even as the ink was drying on the new home economics program, it would be the Southern states who got an early start in bringing food preservation education to their rural

[30] Elias, *Stir It up*, 21; Mike Andrews and Yiling Zhao, "Home Economics and Women's Gateway to Science," *Health and Education* (American Economics Association, 2022): 3.
[31] Elias, *Stir It Up*, 20.
[32] Elias, *Stir It Up*, 19.
[33] Elias, *Stir It Up*, 29.

populations. Given the widespread problem of diseases like pellagra (a niacin deficiency from an inadequate diet) and the heightened chance of food poisoning due to the hot and humid southern climate, canning clubs were first established around 1910 through early utilization of the university extension program. Texas women clamored for the latest information prompting Clarence Ousley, the first Texas Extension Service director, to engage as many as "371 volunteer demonstrators to serve throughout the [1915 to 1917] canning season[s]."[34] In Texas, so-called "lady agents" began their work in 1910 with South Carolina and Virginia starting their own programs in the same year.[35] In 1912, "Girls Canning Clubs" started up in Milam County, TX by Edna Trigg, who went on to become the first official home demonstration agent working for the state of Texas. By 1913, Texas placed an additional eighteen lady agents and a state supervisor was hired to manage the women and the canning clubs. Mrs. Trigg and her small army of lady agents encountered fiercely independent "men folk" who balked at "outsiders telling their wives how to do their work."[36] However, Mrs. Trigg wore naysayers down with frank humor and humility. She put people at ease at demonstrations by relaying her own canning missteps, like the time "every can [of corn] had blown up, and corn was scattered over the entire building."[37] Undaunted by prejudice, lady agents set out to debunk the traditional notion that girls learned to cook and clean from their mothers and to break down the hard baked resentments toward book learning for farm women, by farm men.[38]

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[34] Elias, *Food in the United States*, 60; Hill, *Home Demonstration Work,* 31-32.

[35] Hill, *Home Demonstration Work*, 1, 5; Susan F. Clark and Elizabeth L. Andress, "Our Own Food: From Canning Clubs to Community Gardens," in *Remaking Home Economics: Resourcefulness and Innovation in Changing Times*, ed. Sharon Y. Nickols and Gwen Kay (University of Georgia Press, 2015), 73–94.

[36] Hill, *Home Demonstration Work,* 7.

[37] Hill, *Home Demonstration Work,* 21.

[38] Hill, *Home Demonstration Work,* 7.

The Texas home demonstration clubs organized into the Texas Home Demonstration Association in 1926. Under threat of budget cuts in 1933, the group organized members from 171 counties and marched on the capitol building in Austin to protest large program cuts and subsequently ensured a modest 25% cut as lawmakers recognized "that the state received no greater returns for its money than that which was spent for home demonstration work." [39] The success of the home demonstration work in the South helped lay the groundwork for the BHE by providing an effective blueprint, making the expansion of the home demonstration movement possible and marked a shift at the Department of Agriculture to more directly address the needs of farm women. The Southern experience stands in contrast to women from other states. In New York, the program was titled the Home Bureau, members were expected to pay dues, and home demonstration agents "refused to work with other groups."[40] tailored towards middle-class women and members were expected to pay dues. Rural New Yorkers, "resented the presence" of home economists in their neighborhoods and claimed, "Thrift and economy are not new elements in our affairs." [41] However, attitudes shifted at the onset of the Great Depression and even the staunchest critics embraced the canning movement

Rural Women Want Education

In 1913, a farmer from North Carolina reached out directly to the Department of Agriculture to beg for more farm bulletins for his wife because the few available were not enough. His request prompted a letter be sent to "fifty-five thousand wives from their volunteer crop

[39] Hill, *Home Demonstration Work,* 81.

[40] Kathleen R. Babbitt, "Legitimizing Nutrition Education: The Impact of the Great Depression," in *Rethinking Home Economics*, ed. Sarah Stage and Virginia B. Vincenti (Cornell University Press, 1997): 147-148.

[41] Babbit, "Legitimizing Nutrition Education," 149.

correspondents."[42] The letter was penned by D.F. Houston, secretary for the Department of Agriculture, who confessed that the needs of the farm woman had been overlooked, stating that the Department now "wishes to render directly to the women […] the full aid and service, which their important place in agricultural production warrants."[43] The fact that this letter was sent was an unusual move for any government department. Even with the expansion of education in the late nineteenth century, educational opportunities were limited in the US and most people spent very little time in the classroom, let alone graduated from high school.[44] Public interest in education echoed loudly in the following responses to Secretary Houston's letter as these respondents had not benefitted from the increased educational opportunities that their children would receive.[45]

The Department of Agriculture received more than two thousand responses to Secretary Houston's letter. Responses came in from every state in the US and were compiled into Report 105, Educational Needs of Farm Women. Responses came written in the margins or on the back of the original letter while some were written on scraps of wrapping paper. The responses covered a variety of topics including the loneliness experienced by farm women who rarely left their properties, worn down by the drudgery of farm and family labor. Writing for his wife, a Louisiana man stated, "It seems to me, the first great move should be to form women's clubs. Get them coming out to gatherings for social and self-improvement." [46] A Tennessee woman argued, "The department affords clubs and demonstrators for the farmer and boys; why not organize a club for rural women?"[47] Not just any clubs. The respondents specifically asked for clubs that offered socialization and education through instruction

[42] United States Department of Agriculture, "Report No. 105," 6.
[43] Hill, *Home Demonstration Work in Texas*, 8.
[44] Dreilinger, *The Secret History*, 1.
[45] Anderson & Zhao, "Gateway to Science," 5.
[46] United States Department of Agriculture, "Report No. 105," 42, 44.
[47] United States Department of Agriculture, "Report No. 105," 42.

and demonstration. Women respondents commonly expressed the sentiment that "[they] have decided that a broader education [was their] only hope."[48] A Mississippian wrote, "We need trained experts to demonstrate to us as farm women." [49] A Kansas respondent asked that "competent women instructors [be] delegated to visit as many rural communities as possible and practicable."[50] The request for education was echoed by women in Montana, Idaho, Washington, and many other states.[51] One Tennessee respondent eloquently wrote,

Education is the first thing needed; education of every kind. Not simply agricultural education […] not merely primary training […] I mean the education that unfastens doors and opens up vistas. Education is such an end in itself if it were never of practical use. But one needs it all on the farm […] Knowledge is power […] it is a solace for pain and a panacea for loneliness.[52]

The respondents wanted demonstrations about the newfangled "domestic sciences."[53] Women wanted to know how to can the surplus from their gardens. They wanted to know how to keep their scarce supplies and hard work from spoiling and how to keep their families happy and well fed.

The Department of Agriculture already printed circulars, publications, and bulletins to address issues they thought would be of interest to farm women, but the respondents wanted more and a broader range of topics.[54] Topics of interest included poultry raising, cooking, preserving, plain lessons in domestic science, etc.[55] The responses make it clear that women had expectations about format and delivery. First, these bulletins were too complicated. A

[48] United States Department of Agriculture, "Report No. 105," 40.
[49] United States Department of Agriculture, "Report No. 105," 43.
[50] United States Department of Agriculture, "Report No. 105," 44.
[51] United States Department of Agriculture, "Report No. 105," 42, 44, 45.
[52] United States Department of Agriculture, "Report No. 105," 52.
[53] United States Department of Agriculture, "Report No. 105," 39.
[54] United States Department of Agriculture, "Report No. 105," 61.
[55] United States Department of Agriculture, "Report No. 105," 61.

woman from Minnesota remarked, "The great trouble with most bulletins issued by your department is that they are written in too technical phraseology." Another from Texas recommended the bulletins be condensed because "the housewife does not have time to read it in such lengthy form."[56] Second, they cost between five and ten cents, so affordability was an issue. A Kansas woman wrote, "Don't send out lists of bulletins […] just send us the bulletins."[57] Finally, a respondent from New Mexico pointed out that all the circulars were in English, a problem for "Hispano-Americans, who need to be taught economy, too. We need bulletins printed in Spanish."[58] Evident by responses that conveyed the idea that "if you will teach us farm women […] we will do [the rest] ourselves," rural women were up for the challenge.[59] Report 105 found that forty-seven writers, representing twenty-five states recommended, "The department [of Agriculture] establish a special bureau devoted to the interests of the woman on the farm."[60] The Department of Agriculture responded as requested and formed a new Department of Home Economics to try and meet the educational needs of rural women.

The Department and Bureau of Home Economics

The Department of Home Economics was established in 1915 and in its earliest days, its function was to conduct studies in the emerging field of nutrition and to expand the field of domestic economy.[61] When Louise Stanley was appointed as Chief of the subsequent Bureau of Home Economics (BHE) in 1923, she promoted the idea that farm women had a particular need for modernization and education as their situation was so different from their urban peers and men in general. The goal was to create and support

[56] United States Department of Agriculture, "Report No. 105," 64.
[57] United States Department of Agriculture, "Report No. 105," 65.
[58] United States Department of Agriculture, "Report No. 105," 66.
[59] United States Department of Agriculture, "Report No. 105," 52.
[60] United States Department of Agriculture, "Report No. 105," 59.
[61] Elias, *Stir It Up*, 62.

an agricultural extension service, charged with providing "aid in diffusing […] useful and practical information on subjects relating to agriculture and home economics."[62] As requested in Report 105, pamphlets and circulars were soon available for free and offered expanded content that included information on healthy diets with facts on nutrition and sample menus.[63] Following the Southern example, home demonstration agents popped up all over the country to help rural women both economize their food budgets and teach the science of food preservation. Worries over spoilage and foodborne illness could be alleviated if agents demonstrated the essentials of home canning and the new science of sterilization and pressurization. The early work of the BHE and their home demonstration agents meant that when the Depression settled in on the US, a generation of educated women stood able and ready to train the next generation of food preservation specialists, as well as those still waiting for agents to come to their area.

Got a Canning Question? We've Got an Answer!

The clamor for information about food preservation continued throughout the years of the home demonstration movement. The growing popularity of the radio was a boon to rural families during the 1930s as advancements in technology made radio an affordable medium for the masses. Regardless of one's education, if a person understood English, they could be entertained, educated, and informed all at the touch of a dial. Radio shows geared directly to women began to be popularized in the early 1920s and the BHE was quick to hit the airwaves. The USDA introduced The Housekeeper's Chat in 1926 and by 1935, the show aired on over two hundred radio stations in the US and Hawaii.[64] With the Depression in full swing by 1933, the USDA and the BHE used this program and other radio spots to talk about more than just sewing coats and recipes. Nearly two

[62] Hill, *Home Demonstration Work in Texas*, 13.
[63] Elias, *Food in the United States*, 123.
[64] Elias, *Stir It Up*, 73.

decades in, the home demonstration movement found women still looking for tips, hints, and recipes for canning. Further, upper and middle class found themselves suddenly looking for guidance on all sorts of domestic skills, all contributing to various rural demonstration clubs' recruitment of 100,000 members between 1930 and 1931.[65]

In the summer of 1933, the BHE rolled out their Community Canning Center program on the Housekeepers' Chat. With the economy in shambles, newly elected Franklin Delano Roosevelt created the Federal Emergency Relief Administration (FERA), to handle the distribution of relief funds throughout the country. The BHE looked to bridge gaps in food preservation education and access to equipment with the added bonus of providing job opportunities for struggling families. [66] This would be achieved by implementing the community canning center on a national scale. The broadcast began "in the war on hard times some of the most successful soldiers have been the housewives who have raised food for their families and then preserved a supply of garden products and meats for winter use." [67] According to the BHE, canning would ensure "better health," "families independent of charity," and variety for the family table. [68] Community canning centers and kitchens required a supervisor capable of ensuring that the equipment was used properly and according to the latest scientific methods. [69] The chat also let the audience know that educational and program specific materials were always available for communities beginning their canning programs

[65] Dreilinger, *The Secret History*, 88.

[66] United States Department of Agriculture, Bureau of Home Economics, *Housekeeper's Chat*, "Community Canning Centers," aired May 23, 1933, hosted by Mabel C. Stienbarger.

[67] United States Department of Agriculture, "Community Canning Centers."

[68] United States Department of Agriculture, "Community Canning Centers."

[69] United States Department of Agriculture, "Community Canning Centers."

and showcased success stories from areas with established programs.

Even before the announcement about community canning centers, the canning movement was well underway, thanks in part to efforts in the Southern states. Questions about food preservation came in regularly from all over the country. The BHE was more than ready to share scientific information from their growing pool of home economics experts. Ever conscious of thrift and economy, especially during the Depression, *Housekeepers' Chat* encouraged women to focus on function over frills. In an earlier 1932 broadcast, it was explained that "nowadays, we consider jams, jellies, marmalades, conserves, preserves, and fruit butters as fancy extras to the canning budget" because of the large amount of sugar called for in the recipe.[70] Instead, the Chat encouraged women to recognize that "the sturdy substantial plain canned fruits and vegetables [should] come first" because "science [has] taught us how to can food properly."[71] Episodes talked specifically about using the right canning equipment, addressed questions about the care and upkeep of pressure canners, and shared cooking times and altitude adjustments for water bath and steam pressure canners.[72] It is noteworthy that almost every canning episode spoke to the importance of using the steam pressure canner for low-acid vegetables and meat, reiterating over and over that the water bath method would not adequately kill the bacteria that spoiled food and caused illness.

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[70] United States Department of Agriculture, Bureau of Home Economics, *Housekeepers' Chat*, "The Preserving Kettle," aired August 24, 1932, hosted by Ruth Van Deman.

[71] United States Department of Agriculture, "The Preserving Kettle."

[72] United States Department of Agriculture, Bureau of Home Economics, *Housekeepers' Chat*, "Utensils for Home Canning," aired April 4, 1933; United States Department of Agriculture, Bureau of Home Economics, *Housekeepers' Chat*, "Pressure Canner Questions," aired June 17, 1939; United States Department of Agriculture, Bureau of Home Economics, *Housekeepers' Chat*, "The Steam Pressure Canner," aired May 21, 1937.

The Housekeepers' Chat was an ideal place for the BHE to talk about canning. The lack of home demonstration agents and the sheer size of the United States made it impossible for every community to participate in person, so the radio served as a connection between the BHE and the public. The introduction of community canning centers meant that there would be a place where women could learn about proper preservation techniques regardless of economic status. No longer did families have to fret about affording costly equipment like the pressure cooker. Women, who were leery of solo canning, no longer faced the burden of "putting-up" their own surplus because there would soon be a community place dedicated to helping them through the hard times.

Beauty in a Jar

Messaging from the BHE focused primarily on thrift, economy, and science. However, the Homemakers' Chat constantly dropped subtle hints on the beauty of home canned goods. Reflecting Christensen's nod to women's inclination towards beauty in domestic enterprise, a 1937 *Chat* episode noted that "it's mighty pleasant to see our cans [of] bright asparagus and green peas […] filled and lined up on the kitchen table."[73] A 1933 *Chat* gave tips on how to maintain the color of canned fruits and berries, sharing, "If you 'can' red fruits in glass, [be sure] to keep the jars in the dark […] or wrap in tissue […] to prevent the fruits from fading."[74] In fact, all the science behind canning was and is meant to ensure that preserved foods are visually appealing as well as nutritious and safe. Another program, later adopted by the BHE, showed women how to organize food their food pantries. The penultimate example of homemaking mastery was partially judged by beautifully appetizing and sterile bottled goods.

Beauty was regularly implied as an important element in canning by the BHE and in the canning cookbooks of the

[73] United States Department of Agriculture, "Pressure Canner Questions."
[74] United States Department of Agriculture, "Canning Questions."

era. *The Kerr Treasure Chest of Home Canning* from 1936 emphasized that "your home canned food is appetizing because you control every step," including the selection of foods in order to "capture the healthful goodness […] flavor of luscious fruits and fresh vegetables."[75] In the *Modern Book of Home Canning* of 1938, Kains Emphasizing beauty in the first paragraphs, Kains stated, "The really important distinction lies in the personality and the flavor […] and by the supplemental spices […] conspicuously lacking in commercially canned goods."[76] Further, Kains breaks down packing fruit in jars, advising canners, "When packing halves [of fruit] make overlapping layers with the small end of each piece toward the center…and place a piece of cinnamon stick in each jar if desired."[77] Kains' artful instructions on how best to fill jars, in addition to adding flavor and personality, contradict earlier arguments that canning lacked creativity and was only done out of necessity. Following a canning tour of the US in 1943, Miriam Williams authored *Home Canning Made Easy*. Williams remarked, "I've known women who canned for the sheer pleasure of seeing the glowing colors of garden things behind the glass walls of their fruit jars."[78]

Beauty has always been an important component in home canning because nobody wants to display colorless, gray, and clumpy food in clear glass jars. For rural women, who presumably had little experience with comfort and luxury, opening their eyes to the reality that beautifully canned food was worthy of display would prove transformative. Elias points out that even if women were performing all the labor involved in meal preparation, "Foodways that transformed a

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[75] *Kerr Treasure Chest of Home Canning: A Valuable Guide to Easy Food Preservation at Home* (Kerr Glass Manufacturing Corp., 1936).

[76] M.G. Kains, *Modern Book of Home Canning* (Greenburg Publisher Inc., 1938), 1.

[77] Kains, *Modern Book of Home Canning*, 60.

[78] Miriam Williams, *Home Canning Made Easy* (The Macmillan Company, 1943), 1.

woman into a guest in her own home" were liberating.[79] One response from Report 105 shows that rural women also needed to find themselves as a guest in their own home stating, "Mother […] seems to forget she is human. The woman's place on the farm is not as inviting as it should be."[80] Women for centuries have found areas within the domestic sphere to express their creativity and artistic skill. People marvel at tapestries, pots, baskets, and quilts, all born out of practical necessity and transformed into art by skillful women who refused to let necessity alone dictate their own intrinsic need for beauty in the mundane. Walking into a well-stocked pantry, full of bright and colorful jars of home canned foods may have been like walking into an art display. For the woman, who lovingly "bottled-up" each jar, it likely would have created a boost in confidence that the labor of her own hands is worthy to give as a gift or serve as the highlight of a meal.

Food Preservation Movement Feeds America, 1933-1939

Community Canning Centers to the Rescue

By 1933, the realities of the economic crash and the fallout of the banking system had American families reeling. However, none of this surprised the BHE. Elias argues that "home economists were probably the least surprised or alarmed people in the nation" by the economic downturn and their early emphasis on economy and food budgets was almost prophetic.[81] In the two decades leading up to the Depression, the BHE had preached thrift and economy to American rural farm families. Although contemporary critics accused them of being out of step with the times, the BHE refused to change their methods.[82] As it would happen, these

[79] Megan J. Elias, *Food on the Page* (University of Pennsylvania Press, 2017), 65.
[80] United States Department of Agriculture, "Report No. 105," 59.
[81] Elias, *Stir It Up,* 86.
[82] Elias, *Stir It Up*, 88.

critics of economy and thrift quickly converted as the realities of the Great Depression spread across the country. With two decades of home economics and demonstrations concluded before the community canning program was implemented, the BHE had at least a generation of educated rural farm women ready to mobilize.

Roosevelt won the presidency in 1932 and promised a "New Deal for Americans." The BHE wasted no time in launching their community canning program. Crucial funding from the Federal Emergency Relief Administration (FERA), established in 1933, helped them achieve their goals. It was a timely enterprise as communities across the country had exhausted their capacity to help their own during the first years of the Depression. Drawing on the growing number of women trained in home economics and through home demonstrations, the Bureau sought to reduce the need for federal funding while helping families and communities become self-sustaining. The community canning centers program officially rolled out in June 1933 when the BHE released a comprehensive bulletin through the Office of Cooperative Extension Work at the United States Department of Agriculture (USDA).[83]

The BHE's goals for the canning centers were multilayered. The first goal was to help ensure that Americans were maintaining, if not increasing their consumption of fruits and vegetables. The BHE recommended that where possible, canners should "follow the two hours from garden-to-can" rule.[84] Canning garden produce, picked at its peak helped maintain the best texture, color, and vitamin content. Second, early leaders in the field of home economics noted that Americans were persnickety about food. To satisfy American taste buds, another goal of the canning program was to impress on fickle palates that

[83] United States Department of Agriculture, "Community Canning Centers."

[84] United States Department of Agriculture, Bureau of Home Economics, *National Farm and Home Hour*, "Do's and Don'ts of Canning," aired September 1, 1933, hosted by Ruth Van Deman.

fresh canned foods gave variety to the family table and break the monotony of winter meals. Community canning centers processed locally grown produce and turned out foods conceivably welcome at the family table. Third, there was the additional advantage of giving families the means to control their own food supply. The hope was that food budgets would be less strained by volatile food markets because rural families would have greater success in maintaining a variety of foods regardless of how often they got to town. Fourth, and probably the most important to the BHE, was to staff canning centers with people trained in the science of canning that utilized proper canning equipment.[85] Families that could not afford a pressure cooker would now have access to one at the community kitchen and be taught the most up-to-date methods for canning. [86] For the BHE, it was imperative that families and communities had a variety of foods to choose from and that they were confident that "bottled-up" foods would not spoil on the shelf.

With access to canning consumables like cans and jars limited due to the Depression, the BHE encouraged that other methods of food preservation also be taught at the canning centers. They recommended that fruit, corn, pumpkin, squash, peas and beans be dried, as an alternative to canning to avoid a shortage of canning supplies.[87] Once dried, these foods would enjoy a long shelf-life when stored in pest-proof containers. By the mid-1930s many states required families on aid to grow subsistence gardens to promote productivity and to help feed themselves. [88] Community canning centers became a natural extension of the subsistence garden. By providing a place for families to "put-up the surplus" of their gardens, they would be able to

[85] United States Department of Agriculture, "Community Canning Centers," 3.

[86] United States Department of Agriculture, "Community Canning Centers."

[87] United States Department of Agriculture, "Community Canning Centers," 2.

[88] United States Department of Agriculture, "Community Canning Centers," 2.

enjoy the fruits of the growing season once the frost settled on the pumpkins with "ample supplies to prevent spring fever."[89] Canning would indeed satisfy this need for a family in Baldwin County, Alabama: a woman wrote to the BHE exclaiming, "food was prepared so the children didn't know they were eating minerals and vitamins. In mid-winter the family might exclaim, 'Where did fresh corn come from at this season?' only to find it came from last summer's garden."[90]

Community Canning Centers – a Multi-faceted Program

At the beginning of the national canning program, finding an educated woman to run the center was handled by county extension workers in connection with land grant colleges because of the lack of home demonstration agents in some states. Areas that lacked home demonstration agents found women with canning experience to implement the program or sent them off for training. Local women, with some education through either an official home economics course or through participation in a canning demonstration found themselves quickly placed into leadership positions or hired as instructors. The state of Indiana sent new instructors off to Purdue University for a week-long course in canning and food preservation to prepare them for the canning season.[91] It is hard to imagine that with all this movement in home demonstration that there would still be areas that had yet to see an agent; however, as previously stated, this was the reality. While community canning centers were becoming commonplace in Texas, Virginia, and other Southern states, they were slower to catch on in the rest of the country.

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[89] Kains, *Modern Book of Home Canning*, 2.

[90] United States Department of Agriculture, Florence L. Hall, *National Farm and Home Hour*, "Extension Programs Reflect Interest of Farm Women," aired October 2, 1935

[91] Governor's Commission on Unemployment Relief, Garden and Food Conservation Division, H.E. Young, *Annual Report: Gardens & Food Conservation in Indiana, 1936*, 7.

Funding was often cited as a barrier for communities but with the arrival of FERA grants, things very quickly turned around. Community centers were able to purchase essential items like pressure cookers and large kettles in addition to cans, jars, and other containers and sealers.

In the state of Idaho, funds were distributed throughout all the major counties and women stepped from the society columns of local newspapers into the business section.[92] For example, the City of Twin Falls took initiative to establish a kitchen on their own and pulled experienced women into the enterprise by taking advantage of the BHE's pledge to assist local operations. The community canning kitchen was established by Mrs. Gladys Barrett, "who […] had training and experience in home economics work."[93] In Preston, the canning kitchen was scheduled to operate four days a week and families were welcome to bring the produce from their gardens and use the kitchen without charge in exchange for two cans out of every dozen being donated to relief efforts.[94] Pocatello canned from the best community garden in the state, which contributed fifteen acres of produce for the community kitchen. Under the supervision of Ethel Stringer, the Pocatello kitchen expected "to provide employment for women in need of work" and to "provide containers and pressure cookers" for canning use.[95] Canning kitchens were also established in Blackfoot and Shelby. American Falls established their kitchen in 1933 with all the output going to relief work in the first year.[96] Under the direction of Mrs. Rebecca Wilson, Buhl operated a Works Progress Administration (WPA) camp kitchen that simultaneously fed WPA workers in various camps throughout the Magic Valley

[92] "President Roosevelt Gives Order Approving Allocation of $157,657," *Idaho Statesman,* August 29, 1935. Newspapers.com.
[93] "Women Establish Canning Kitchen," *Twin Falls Daily News*, June 24, 1934, 12. Newspapers.com.
[94] "Canning Project Well Under Way in County," *Preston Franklin County Citizen*, August 1, 1934, 1.
[95] "Canning Unit Organized Here, Fourth Center Opens in East Idaho," *The Pocatello Tribune*, July 29, 1934..
[96] *Montpelier Bear Lake County News*, December 8, 1933, 7.

area of Idaho and served seven hundred fifty school lunches, in addition to helping local families preserve their garden surplus.[97]

In the drought-weary Texas panhandle, community canning centers were established even as the Dust Bowl winds threatened to blow everything away. However, thanks to the help of home demonstration agents and savvy gardeners, farm women achieved outstanding results by using a subsoil irrigation method in small garden plots, with what they referred to as "gyp water" or greywater, and kitchens processed an exceptional number of fruits and vegetables in 1934.[98] Oklahoma's annual garden contest of 1935 was its most successful since it began in 1928. In 1928 they "bottled-up" 498,157 quarts of vegetables. The number more than doubled by 1935, when up to 1.2 million canned items were counted.[99] When the intensity of the drought on the high plains of Texas, Oklahoma, and New Mexico prompted the wholesale slaughter of cattle, community canning centers stepped in to help process and distribute the meat. It was such a success that home demonstration agent, Mildred Horton, was called on to explain the Texas plan to twenty-four representatives of other states on food preservation methods.[100]

In Oregon and Maine, mobile canning kitchens were the name of the game for extremely rural areas. In Josephine County, Oregon, one demonstration agent and two experienced industrial canners operated the mobile canning kitchen day and night. In six weeks, they turned out an astonishing 90,000 cans with an excess of 3,000 cans for relief work.[101] The ingenuity used to establish these centers

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[97] "School Lunches Provided Daily in Cassia County," *Idaho Statesman*, April 4, 1936.

[98] United States Department of Agriculture, *Extension Service Review* 5, no. 10 (October 1934): 152.

[99] United States Department of Agriculture, *Extension Service Review* 7, no. 4 (April 1936): 62.

[100] Hill, *Home Demonstration Work in Texas*, 38.

[101] United States Department of Agriculture, "Community Canning Centers."

across the country is remarkable. Every center had a story, and it is quite notable that, regardless of when or where the center was established, they were run by women and enthusiastically supported by the local community. Noted in a radio talk just three months after the community canning program went national, Ruth Van Deman of the BHE noted, "Some communities are going into food conservation in a big way […] providing employment […] and turning out thousands of cans for relief work."[102]

Based on the 1933 *Annual Report of North Carolina Relief Gardens*, the state went all in on gardening. In North Carolina, the governor's office aimed to help people on relief rolls provide a portion of their own foods while being actively engaged in gardening as a requirement of their relief benefit.[103] Gardening supervisors worked in concert with community canning centers to ensure that families were able to "can their surplus" in addition to that of community and church gardens. North Carolinians practically dug up their entire state to plant subsistence gardens. With little investment, they used a paltry $19,000 of federal funds to produce over $500,000 worth of food. Canning operations were overseen by Jane S. McKimmon and her staff and in 1933, they collectively canned over 7 million quarts, between 323 community canning centers, and relief homes run by community canning leaders. The North Carolina report also made clear that women were in charge, and the government was taking both their work and opinions seriously. The final three pages of the report list the recommendations of at least fifteen different women from various counties throughout the state. In a nod to the BHE's goals of furthering the education of rural women through food preservation, Mrs. J.D. Whitford of Craven County, North Carolina, made this comment on her experience: "The workers have gone into the most humble and illiterate homes of the rural sections

[102] United States Department of Agriculture, "Do's and Don'ts of Canning."

[103] Federal Emergency Relief Administration, *Annual Report of North Carolina Relief Gardens Season, 1933,* by Chas S. Sheffield.

and labored untiringly with that class and there has been instilled into them a sense of pride and ambition which we believe will last through the years."[104]

In 1936, Indiana caught the canning and gardening fever, building on their success over the previous three years. Approximately 60,000 gardens were planted by individual families and community canning centers operated in all seventy-four counties, both urban and rural. They cite their success as coming from "active cooperation with township trustees sponsoring local garden and canning programs […] extending instruction work to thousands of families who otherwise would have received very little assistance."[105] The response from participants was so enthusiastic that they continued instruction during the winter months of 1936-37 and added an additional "twenty-four garden instructors and thirty canning instructors" for the 1937 garden and canning season. Indiana put up an approximate 1,321,470 quarts between the community canning centers and home canning efforts which "represents an average of 100 quarts each for more than 25,000 relief families."[106] Trustees in the various townships that participated wrote glowing reviews of the endeavor, claiming, "This project not only saved money on canned food […] but put to work quite a number of women," and, "This canning project was one of the best ever sponsored."[107]

Scholars who often only give the canning movement a perfunctory nod overlook the success of community canning centers during the Depression. Historian Kathleen Babbitt reflected that the public accepted canning kitchens and subsistence gardens because they "were excellent ways to assist unemployed families without the shame" and stigma that came from receiving relief.[108] Considering the sheer volume of canned goods produced from subsistence,

[104] Sheffield, "North Carolina Relief Gardens," 15.
[105] Governor's Commission, *Annual Report: Gardens & Food*, 7.
[106] Governor's Commission, *Annual Report: Gardens & Food*, 3.
[107] Governor's Commission, *Annual Report: Gardens & Food*, 15.
[108] Babbit, "Legitimizing Nutrition Education," 161.

backyard, school, and community gardens it is clear that the few case studies offered in this research represent only a snapshot of what transpired throughout the country during this time period. In each example the goals of the BHE were realized, community canning centers did help communities become more self-sustaining. Communities across the country were able to "bottle-up" an astonishing number of containers.

The following raw figures and dollar amounts represent what was reported to county extension agents during 1934 to 1938 and are likely under representative of the actual counts. [109] However, even with the limitations in the data, the numbers alone should be enough to wow canning skeptics. Between 1934 and 1938, with an average of 1,739 counties reporting, community canning centers and clubs processed approximately 409,364,789 canned goods, an estimated retail value of $91,653,279 (not adjusted for inflation). Over the same period, an estimated 639,743 families found assistance at approximately 15,828 canning centers across the country. Many canning centers functioned as the kitchen in Buhl, ID, where school lunches and WPA camps were supported. Others functioned as the kitchen in Preston, ID, where product was traded for kitchen access, creating a surplus for the kitchen to distribute to relief efforts. Americans benefited from the canning program in numbers that far exceeded the numbers of those who showed up to can their garden surplus. The value these centers gave to their communities kept many centers/kitchens active in the coming decades.

Impact on Community Health

The overwhelming success of the community canning center and the early work of home demonstration agents to bring education to rural American women contrasts with Levenstein's claim that "government programs to improve

[109] United States Department of Agriculture, *Extension Service Circulars 217, 224, 266, 286, 309: Statistical Results of Cooperative Extension Work, 1934-1939.*

the nutrition of the people, whether aimed at housewives, war workers, or schoolchildren – had little impact," and his claim that the modern woman would not process her own food because there was little time or need.[110] Researchers Cathleen Zick and Anna Birtulescu further debunk this myth. While this research does not discuss food preservation or community canning centers specifically, it is still applicable as it focuses on a rural area of the country, household technology, and homemakers' time in the kitchen. Looking at the food habits of Americans in relation to shifts in women's work throughout the 20th century, the authors found that farm families enjoyed better diets than nonfarm families in 1930s America and that access to modern kitchen technology improved diet.[111] Additionally, the data showed that "a homemaker's education had a positive association with the variety of foods served in 1936."[112] The surveys analyzed showed that by 1952, the trend in variety and healthfulness of American diets continued to increase based on these factors. Although Zick and Birtulescu offer only one analysis on community health in Upstate New York, their conclusions beget broader implications. Most importantly, there is a correlation between the goals of the BHE and the accessibility of modern kitchen technology through community canning centers and the positive findings of this research.

Impact on Rural Women

The community canning center would push women off the farm and into their communities. Women who engaged in community service and educational opportunities came out of the 1930s with more than just knowledge about food preservation. Community canning centers became the central location for women to learn on a variety of topics

[110] Levenstein, *Paradox of Plenty*, 79.
[111] Cathleen Zick and Anna Birtulescu, "Diet Quality of Farm and Nonfarm Households in the First Half of the Twentieth Century," *Social Science History* 43, no. 4 (2019): 705–31.
[112] Zick and Birtulescu, "Diet Quality," 726.

including kitchen and pantry design, dressmaking, gardening, home improvement and beautification, budgeting, and even ticking (mattress making). A Rhode Island woman claimed, "Accounts prove […] it is good business to make the farm produce most of our food. We get a liberal food supply of greater variety, we use cash for such things as clothing, labor saving equipment and fixing up the house […] with better health and a better living all around."[113] When asked to identify which activity was most important during her time in an Extension Homemakers Club, a participant from North Dakota stated, "I really think that the canning and preserving of food was one of the best things."[114] In a nod to beauty, a Floridian club member commented, "I think it's a wonderful heritage […] to see the beautiful canned goods that's on the shelf, and say, 'Well, I grew it, and I preserved it, and now you're eating it.' It's great."[115]

The education offered by home demonstration agents to women certainly reinforced the gendered assumptions of the era but as the original questionnaire from the Department of Agriculture was put directly to women, it is hardly surprising that the response focused on their specific needs at the time. It is often necessary for people to work within the confines of social constructs before they can break down barriers. There is no better vehicle to breaking down the societal barriers that confine women than to educate them. Of course, there are examples where home demonstration agents pushed their ideals too far. The demands of travel and time away from home were not always conducive to married and older women. Elias points out that many of the agents were young, so finding evidence of discord between home agent and farm woman can hardly be surprising.[116] However, the sources speak to both the overwhelming success of the

[113] United States Department of Agriculture, "Extension Programs Reflect Interest of Farm Women."
[114] Eleanor Arnold, *Voices of American Homemakers: An Oral History Project of the National Extension Homemakers Council*, 1985, 139
[115] Arnold, *Voices of American Homemakers*, 145.
[116] Elias, *Stir It Up*.

educational outreach for women, the food preservation program, and the community canning centers. Through the education and empowerment of women in food preservation, debts would be paid, land would be purchased, rural lives improved, and women would feed the nation through the 1930s. Through the education and empowerment of women in food preservation, rural lives improved. Families paid off debts and bought land, and women helped feed the nation through the 1930s.[117]

Conclusion

The story of community canning centers during the 1930s is the product of a much larger and often overlooked movement. A movement that empowered rural women through food preservation education, produced millions of cans and quarts of preserved food, and offered hope to what felt like a hopeless situation is a rare gem in historical research on US government programs. Yet, the story does not end with the conclusion of the Depression, while the BHE saw the community canning center as a temporary solution to an immediate problem, the communities that utilized them felt differently. Many centers became a fixture in their communities for the next several decades. When World War II broke out, the community canning centers continued to be utilized. The war brought mandatory rationing, and Americans were asked to support the war effort by planting Victory gardens. In 1944, approximately 25 million families canned an astonishing estimated 3.5 billion quarts.[118] The community canning kitchen idea was even revived during the economic downturn of the 1970s. Canning became a community event again during the Great Recession as women were re-called to teach classes at local churches and master gardeners were summoned from

[117] Debra Ann Reid, "Locations of Black Identity: Community Canning Centers in Texas, 1915-1935," *Research and Review Series* 7 (2000): 37–50.

[118] Clark and Andress, "Our Own Food," 77.

Extension offices.[119] The USDA and the University Extension office has stayed invested in home food preservation over the long haul, offering canning guides and books with regular updates throughout the decades. Their recommendations are still the gold standard in home canning and food preservation.

There is also the enjoyment of canning. "Putting up the surplus" can be very gratifying for women especially if it came from their garden. Those who wish to enjoy the fruits of their labor beyond the growing season often engage in some kind of food preservation. Considering the varied interests and hobbies of Americans, it is surprising that historians and food writers like Levenstein and Dickerman would find the practice so passé. There are obvious periods of renewed interest or declined popularity, but over the last century it is hard to find a time where women were not canning. Some women love to can, finding beauty in the process and outcome, just as they might love to paint, quilt, or weave baskets. In an interview from 1978, Addie Mae Dotson from Mississippi exclaimed, "I *loves* to can […] if I can find something to can, and have the jars, and the tops […] I *loves* to can."[120]

Even as industrial food preservation technology moved on, the home canning movement has never fully been pushed to the side. Today, a few of these kitchens still exist and function in much the same way as they did during the 1930s. Sustainable food movements like "civic agriculture." a term that includes farmers markets, community gardens, agricultural tourism, u-pick, and other unconventional ways of procuring food may create a new need for community canning kitchens. Today, as in the 1930s, American families are confronted with volatility in food markets, a consolidation of foodways, and changing weather patterns

[119] Jennifer Moore, "During Tough Times, Canning Makes a Comeback," *Weekend Edition*, National Public Radio, June 20, 2009.

[120] Christensen, "Simply Necessity," 20.

due to climate change. Additionally, with American production of aluminum and steel at an all-time low and uncertainty in global commodities markets, the cost of commercially canned goods is likely to increase. As Americans grapple with new ideas about sustainability, processed foods, and control over food sourcing, perhaps we will see a full-scale canning revival. If the shortage on canning supplies during the Covid-19 pandemic was any indicator, the passion for home canning seems unlikely to ever go out of style.

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The history of *History Matters*

Appalachian State University, Department of History

Have you ever spent so much time and effort on something that you wanted to share it with other people? Have you ever felt unfulfilled receiving only a grade and your own satisfaction as rewards for your hard work? Have you ever wanted to get your work published?

For these reasons *History Matters* was founded. In the spring of 2003, Eric Burnette, a freshman at Appalachian State University, was looking for an outlet for his research paper. He was frustrated by the lack of venues for undergraduate research, and he figured that other students probably felt the same way. Dr. Michael Moore, who had edited *Albion*, a professional journal of British history, for more than 25 years, began advising Burnette on how best to go about starting an academic journal for undergraduate historical research. Another Appalachian student, Matthew Manes, was asked to join the interesting experiment, and together they laid the groundwork for *History Matters*.

Our first deadline was in late January 2004. For the editorial staff, it was an extensive and time-consuming process of reading, revising, and communicating with both the authors and the Faculty Editorial Board. In the end, the collaboration published one research paper, one research essay, and three editorial book reviews. This first issue of *History Matters: An Undergraduate Journal of Historical Research* was published online on April 28, 2004.

From the beginning, Burnette and Manes wanted to expand the journal. The more students who were involved, the more students who had the opportunity to be published and the better those papers would be. The 2004-2005 school year saw the participation of the University of North Carolina Asheville and Western Carolina University, as well as submissions from half a dozen schools nationwide. The 2005 issue was published with two research papers, one from Appalachian State University and one from a student at Villanova University. Five book reviews from all three participating departments were also published.

Since 2004, *History Matters* has grown drastically. Over the years our submission base increased from 11 papers in 2004-2005 to 136 papers in 2016-2017. We now receive submissions from all over the United States from distinguished universities including Yale, Harvard, Brown, Cornell, UC Berkeley, and Stanford. History Matters has also expanded internationally. We have received submissions from Canada, Great Britain, Australia, and South America while also employing international staff members as contributing editors.

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