

# **The Boulder Apple: Uncovering and Disseminating the Historical and Biological Identities of Boulder's Oldest Apple Trees**

## **EXECUTIVE SUMMARY**

The City of Boulder contains hundreds of historic apple trees that provide a bank of local, well-adapted, and tasty fruit, including many “lost” cultivars that were once popular nationwide and many unique to this area. These apple trees also contribute to Boulder’s cultural heritage. The trees live everywhere, from densely-packed neighborhoods to the farthest reaches of the city. Consequently, apple trees can help integrate the agricultural history of Boulder into downtown and more densely-populated spaces, in addition to providing ample opportunities for preserving and sharing that history across the city. The history of apple trees also shows that the early settlers of Boulder created a local fruit economy that provided fresh food for residents and local mining camps while supplementing family incomes. The fruit industry in Boulder was also supported by business associations and government aid that helped to promote the industry overall. As such, apple history in Boulder helps to unite the common images of an American West settled by independent, scrappy farmers with the equally important role of investment, marketing, and government support. There are three specific aspects of sharing and capturing this history that are relevant to OSMP:

- There are apple-related signposting, walking tour, and grafting opportunities at the Doudy-DeBacker-Dunn Homestead and Manchester Farm, and in parks in the Newland’s Neighborhood.
- There are neighborhood-level community engagement and interviewing methods that can share information with residents while gathering feedback on what is important to the group to preserve culturally and environmentally.
- Many historic apple trees are on private property, making those on OSMP land all the more important to make this cultural and ecological resource more accessible.

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## **ABSTRACT**

The City of Boulder is home to hundreds of apple trees. Since the late nineteenth century, apples have spread across the city in the stomachs of birds and bears, in the rushing water of irrigation ditches, and in the hands of people planting them for their families and their businesses. While observers in the 1920s remarked that the majority of the early orchards had disappeared or were in decline, many of the historic apple zones in the Boulder region – such as Old North Boulder, Eldorado Canyon, and Hygiene – remain apple hotspots today. The remnants and descendants of these early orchards provide a genetic reservoir of rare – even unique – cultivars that have survived short- and long-term environmental changes and sporadic human care. Preserving these apples can provide access to a delicious, historic, and versatile food source, while providing educational and engagement opportunities to the public to learn about the long history of agricultural experimentation in and around Boulder.

## **Keywords**

Agricultural history, apple trees, local food, early settlers, nineteenth century, community engagement, cultural heritage

## INTRODUCTION: AN OVERVIEW OF BOULDER'S APPLE HISTORY

If you stand at the center of downtown Boulder, at Pearl Street and Broadway, any direction you turn there is an apple story. Walk west on Pearl toward Settler's Park and you will pass the location of the Brierley family's 1871 ranch, where they planted apples and other food to sell to miners in the canyons.<sup>1</sup> Head north on Broadway, passing Alpine Street, and to your right would have been Joseph Wolff's commercial fruit operation, and to your left, the Newlands' family estate. Wolff owned 160 acres in Old North Boulder, where he established a well-known fruit farm in the late 1860s (Rattlesnake Ranch, later renamed Orchard Grove Fruit Farm).<sup>2</sup> William and Mary Newland bought 240 acres in 1871 and cultivated their own orchard, which would become one of Boulder's first subdivisions.<sup>3</sup> And if you walked south on Broadway, you would soon find yourself where Marinus Smith – one of the founders of the town and the granter of the land on which the University of Colorado, Boulder now sits – once held property. He, too, planted an apple orchard.<sup>4</sup> This assembly of orchardists captures the early story of apples in Boulder. Some settlers planted apples for themselves and their families, sometimes running small operations; some, like Wolff, made a go at building a fruit empire. And even some, like Marinus Smith, planted apples with a mind to prove that fruit could thrive in the Front Range.

Today, there are hundreds of apple trees in the City of Boulder. The majority of them are clustered in the oldest neighborhoods of the city, spreading north and south from downtown

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<sup>1</sup> Also spelled "Brierly" in some sources. Building Inventory for 201 Pearl Street, Call No. 780-Pearl-201, Carnegie Library for Local History, Boulder Public Library, Boulder, CO (hereafter, Carnegie). Available online via <https://localhistory.boulderlibrary.org/>.

<sup>2</sup> Landmark Papers for the Wolff House, Call No. 760-802, Carnegie.

<sup>3</sup> Boulder Survey of Historic Places, 1995: Newland Addition/North Boulder. Available online via [bouldercolorado.gov](http://bouldercolorado.gov).

<sup>4</sup> "Smith's Garden," *Boulder County News* (Boulder, CO), June 5, 1874, in *The Early Days*, Call No. R978.863G, Carnegie.

Pearl Street. Over 200 of these apples are on Open Space property, likely holdovers from family farms and from wild-seeded apple trees. These public trees offer opportunities to study and educate residents on key themes in Boulder's agricultural history, including agricultural experimentation, the importance of a truly local economy, and the intertwining of small farmers with large-scale commercial investment in the late nineteenth and early twentieth centuries.

Like many local histories considered in a larger regional or national context, the story of apple trees in Boulder is generally unremarkable. While boosters may have wanted Front Range apples to set a national standard in quality or quantity, they never did.<sup>5</sup> Colorado apples did achieve the pinnacle of national fame at the St. Louis World's Fair in 1904, but those apples were from Montezuma County.<sup>6</sup> The railroads that helped connect Colorado to markets in the east and west also boosted the Pacific Northwest as a commercial producer of apples. The climate there nurtured sweeter, bigger apple varieties than could grow reliably along the Front Range. By the early twentieth century, Colorado's nascent dreams of commercial relevance had all but disappeared.<sup>7</sup> Even within the state economy, sugar beets in Eastern Colorado or the peaches of the Western slope were the economically vital industries.<sup>8</sup> And, locally, fruit was never the largest

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<sup>5</sup> The achievements of Colorado apple growers can be difficult to measure, given the enthusiasm of boosters and journalists promoting the area. For example, *The Commercial West*, a publication that described itself as representing "Banking, Western Investments, [and] Milling and Grain," reported that Colorado apples were "the standard of high quality on the Pacific Coast" and were able to "top the market in Chicago" in 1908. Yet for the years 1899 and 1909/1910, Colorado was consistently and greatly out-produced by states like California and New York. *Commercial West* (Minneapolis, MN), August 15, 1908. Available on Google Play.

<sup>6</sup> Nancy Lofholm, "An Apple Revival Near Four Corners is Restoring Hundreds of Historic Fruits – and The Local Economy," *The Colorado Sun* (Denver, CO), November 28, 2019.

<sup>7</sup> Susan Evans, "Washington State: As American as apple..." Smithsonian National Museum of American History Website (Washington, D.C.), June 2020.

<sup>8</sup> Thomas Noel, Paul Mahoney, and Richard Stevens, *Historical Atlas of Colorado* (Norman, OK: University of Oklahoma Press, 1994).

agricultural crop.<sup>9</sup> Yet on small commercial orchards, in backyards, and on family farms and ranches, apple trees formed an important, if small, part of the city's local economy in the nineteenth century.

The cultivar consolidation that started in the Pacific West continued over the next century, until by 1980 half of all apples sold in US supermarkets were of a single variety, the Red Delicious. The commercialization of apples promoted varieties whose sweetness, size, and aesthetics could be replicated millions of times over. Linkages among global markets in the 1980s provided new tastes and textures to American consumers. Their names will be familiar to any supermarket shopper today: Fujis from Japan, Galas from New Zealand, and Granny Smiths from Australia. Globalization of the apple industry provided another blow to American-grown apples; orchards in the US diminished by another 20% in the 1980s and 1990s. And in the midst of all this change, local apples from small family farms bore the brunt. Over the course of a century and a half, apple orchards on family farms went from being a cornerstone of homeownership to being in use on less than 1.5% of farms. The homogenization of the American apple industry has increased the use of pesticides and decreased the lifespan of apple trees, with industrial trees living for approximately 10 years where older varieties can live to 100 or more.<sup>10</sup>

Over the past 30 years, there has been a resurgence of interest in local food and what historian William Kerrigan calls "civic agriculture."<sup>11</sup> In interviews conducted by the Boulder Apple Tree Project (BATP), an interdisciplinary research group out of the University of

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<sup>9</sup> For example, between 1910 and 1920, the 'fruits and nuts' category grew slightly, but 'cereals' were more than six times larger. Deon Wolfenbarger, "Boulder County's Agricultural Heritage," prepared for Boulder County Parks and Open Space Department and Boulder County Land Use Department, 2006, 24.

<sup>10</sup> William Kerrigan, *Johnny Appleseed and the American Orchard: A Cultural History* (Baltimore, MD: Johns Hopkins University Press, 2012), 193.

<sup>11</sup> Kerrigan, *Johnny Appleseed*, 193.

Colorado, Boulder (CU), Boulder residents have expressed interest in integrating existing apple trees and orchards into the urban landscape and foodscape. Some residents are already making that integration a reality by caring for their own orchards, sharing apples with friends and neighbors, and celebrating seasonal cider-pressing and apple-picking parties.<sup>12</sup>

## **APPLES IN THE 21<sup>ST</sup> CENTURY: THE BOULDER APPLE TREE PROJECT**

Today, there is a renewed interest in local apple trees. Luckily, there are over 1,000 heirloom apple trees still in existence in Boulder County. However, each year, the county loses about 10% of those due to age. Within the City of Boulder, while apple trees are surprisingly adaptable to urban growth, they are additionally threatened by increased development. BATP is part of the effort to study and preserve these historic cultivars. BATP is a team of university researchers and community partners who work on the ecological and cultural heritage of local apple trees to create a living resource that preserves the cherished place of apple trees in Boulder and provide a bank of historic, sustainable cultivars for the future. This report was conducted in partnership with BATP and OSMP.

The history side of BATP has encompassed a number of goals, including:

- Identifying the oldest apple trees in the City and County of Boulder.
- Interviewing current residents about apple trees.
- Tracking the history of apples over time.
- Providing a list of documented cultivars by decade.
- Educating undergraduates in the basic methods of local history research, with a focus on providing historical methods education to non-history majors.

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<sup>12</sup> BATP interviews in BATP Research Collection; Community History Event conducted in November 2019 at the OSMP Headquarters in author personal collection.

This report provides a broad history of apples in the area, a selection of the most well-documented orchard histories within and near the City of Boulder's Open Space lands, and findings from an OSMP-hosted Community History Day in November 2019.

To date, the Apple Project has engaged over 60 volunteers in historical and ecological surveying, undergraduates in four research-based history and ecology classes, and has been provided grafts for about 75 new trees from trees on OSMP property, suggesting that there is a wide base of interest in this history and the preservation of apple cultivars in the area. While the majority of these apples reside on private property, some of the historic homesteads are on Open Space land, and a few of the apples are in or near smaller parks throughout the city. With this in mind, Open Space land has the opportunity to take what is currently a largely private resource of historic apples and share the apple history of Boulder with a wider audience.

## **METHODS**

This report includes sources from the Carnegie Library for Local History in Boulder; the Western History Collection and the closed stacks at Denver Public Library; government document collections at Colorado State University's Archives and Special Collections in Fort Collins and at the University of Colorado, Boulder's Norlin Library; online newspapers; OSMP site reports; interviews with private property owners; site visits; and genetic research from BATP.

In addition, this report includes responses from a group interview, or Community History Event, hosted by BATP and OSMP for the Newland's Neighborhood in November 2019. Neighbors who had submitted interview or survey requests to BATP were invited and the event was

publicized on the BATP website. Five people attended, two of whom lived in the neighborhood. The event began with a grafting demonstration and a brief presentation on the history of the Newland's Neighborhood. Then there was a guided group discussion, which was recorded. All of the attendees signed waivers allowing for the recording and their cross-streets to be used for research and publication purposes. In addition to being asked to share their personal histories with their trees and for any historical information they had, the following questions were asking during the group interview:

- How do you use your trees, or your neighbors' trees?
- Who cares for the trees in your neighborhood?
- Do you feel there are any challenges facing the apple trees in your community?
- What value do apple trees add to your community?

### **BOULDER'S FIRST APPLES: HOMESTEADING AND COMMERCIAL INTERESTS**

How did apple trees – a plant originally native to Central Asia – get to Boulder? Domesticated apple trees, *malus domestica*, came to the New World with the first European settlers and laborers. Apples provided cider and vinegar, helping to preserve vital food stores and provide a safer source of hydration than water. Apple orchards also provided a reminder of home and a visual representation of divine power over the New World – turning a tangled wilderness into an ordered garden.<sup>13</sup>

As European settlement started to move westward after the Revolutionary War, apples got a boost from the newly minted US government. Some land grants required homesteaders to plant apples or pears, in some cases requiring the planting of as many as 50 trees. Officials figured that an orchard, which can take as long as a decade to produce

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<sup>13</sup> Joan Morgan and Alison Richards, *The New Book of Apples* (London, England: Ebury Press, 1993); Kerrigan, *Johnny Appleseed and the American Orchard*; U. P. Hedrick, *A History of Horticulture in America to 1860* (New York: Oxford University Press, 1950).



edible fruit, would literally root homesteaders to the land, thereby dissuading land speculation and encouraging settlement in new territories.<sup>14</sup>

In addition to their longevity, apple trees are one of the most adaptable species on earth. They are able to cross-breed with ease and, when they reproduce naturally from seed, create a unique, new genetic sequence with each new tree. This ability is responsible for the great diversity of apples in taste, color, and size. Humans can bypass a tree's heterozygous genetics by grafting, in which a small part of one tree is attached and grown together with the roots of another. For the most part, until the nineteenth century, people planted apple trees by seed in North America, not by graft.<sup>15</sup>

As with much of the history of the early days of the city, mining played a central role in bringing apples to Boulder. Some of the earliest orchard developers turned their attention to agriculture after trying their hands at mine ownership, and mining outposts in the foothills also provided one of the first and most consistent markets for apple growers. It did not take long for agriculture – and fruit-growing in particular – to become an important part of “pioneer” identity in its own right, however. A publication from 1888 presents a sample of this history-making in action. Published by the Union Pacific Railroad, the pamphlet describes the experimental nature of early fruit-growing in Colorado, stating, “From the first experiment of a few years ago, fruit-growing has become a permanent industry, and it gives promise of great profit in the future.” As

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<sup>14</sup> Michael Pollan, *Botany of Desire: A Plant's-Eye View of the World* (New York: Penguin Random House, 2001); Frank Browning, *Apples* (New York: North Point Press, 1998).

<sup>15</sup> In Boulder, many of the oldest apple trees today are historic varieties clearly grown from a graft. However, bears, birds, and other animals have played a part in spreading apple seeds across the region, and share the responsibility of covering Boulder with apple trees. It is also possible, based on the pattern of clusters of trees today, that water running through irrigation ditches helped to disperse seeds, as well. On land grants: Pollan, *Botany of Desire*; bears: interviews from property owners conducted by the Boulder Apple Tree Project (BATP) in 2018 and 2019, in BATP Research Collection; ditches: Chance Nelson, GIS Mapping Project, 2019-2020, in BATP Research Collection.

to the origins of fruit-growing in Colorado, it assigns that responsibility to a “pioneer” in Jefferson County: “If first experiments are to be taken into account,” it reads, “the era of fruit-growing in Colorado began twenty-five years ago, when William Lee, of Jefferson County, the pioneer fruit culturist of the State, hauled his first stock of trees by mule team from Iowa City, Iowa, in 1863.”<sup>16</sup> Publications like this one had a tendency to throw every different type of spaghetti at the wall; fruit was clearly meant to be an attractive possibility for people interested in investing in or moving to Colorado, but it was one noodle of many. Still, in the history of apple trees, this type of boosterism played an important role in making Colorado – and Boulder – seem like a place worth agricultural investment.

The first apple trees in Boulder County were likely planted in the St. Vrain Valley region, in Hygiene, in the 1860s.<sup>17</sup> Accounts differ on the first settler to bring domestic apples to the area, but among the ranks of those credited are George Webster and John Goss. Both Webster and Goss were settlers interested in establishing their own businesses, including large-scale growing operations. As such, they were part of a larger trend across the US West of encouraging white settlement through agriculture and

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<sup>16</sup> Union Pacific, “Colorado: A Complete and Comprehensive Description of the Agricultural, Stock Raising and Mineral Resources of Colorado,” Call No. C330.9788-U579re-1889, Closed Stacks, Western History Collection, Denver Public Library (hereafter, DPL).

<sup>17</sup> There is some discrepancy among sources as to who brought the “first” apple to Boulder County. According to research by the Montezuma Orchard Restoration Project, George Webster was one of the first apple-growers in the state. (Jude Schuenemeyer, “Heirloom Fruit Trees of Colorado,” Pro Green Expo Heirloom Fruit Trees of Colorado presentation notes and slides, January 2015). St. Vrain Valley, where Webster settled, is also mentioned as the origin of Boulder County’s fruit-growing history in the 1888 Union Pacific pamphlet. Likewise, *The Irrigation Era* from 1897 identifies Webster as the first “man to plant trees” in Boulder County, including apple trees planted in 1867 that he supposedly brought in a wagon. However, other sources mention other beginnings. For example, a retrospective in 1912 identified John Goss of Longmont as the first apple-grower in the state (and therefore the county), though the article also mentions that a Wilson Stanley brought a load of “apples” (in context, one assumes the author means trees) from Iowa in 1868. Elizabeth Lloyd, “Boulder County Pioneers: John W. Goss,” *Boulder County Miner* (Boulder, CO), Call No. Lloyd 998-15-12, Carnegie. Likewise, there is a mention of “crabapples” presented at the first Boulder County Fair in 1869, attributed to S.H. Green. “Boulder County Fair,” *Boulder County News* (Boulder, CO), 1869, Microfilm 4761, University of Colorado, Boulder Libraries.

irrigation. Fruit played a central role in this process in the Boulder area. An 1897 publication of *The Irrigation Era* presents a taste of how this process worked. In advertising its value to subscribers and western towns, the staff of *The Irrigation Era* lament that “It is a hard matter to convince the people of the east that Colorado is an agricultural and fruit growing state. We are known only as the land of mines.”<sup>18</sup> The writers did their best to change that perception in their treatment of Boulder, beginning with the grand opening paragraph:

“Its wealth of Gold and Silver, Fruits and Grains; abundance of Water for Irrigation, and Matchless Climate. These are the natural elements of greatness that are just at this time attracting more attention than any territory of Western America. Just a little ways up from Denver is the town; all around on all sides, almost as large as the state of Connecticut, is the county, about evenly divided as to mountains and plain.”<sup>19</sup>

These are the words of people with something to sell, and while *The Irrigation Era* provides an excellent window into why and how people invested in and moved to places like Boulder in the late nineteenth century, the numbers in it must be taken with a grain of salt. (For instance, Boulder County was not then, nor is it now, the size of Connecticut.) As the writers admit, “Our principal aim in this description of Boulder county is to call its many advantages to the attention of the home-seeker and capitalist of Eastern States.”<sup>20</sup> So, what were they selling? Among tributes to the area’s benefits to health, its irrigation, “matchless climate,” and closeness to Denver, the authors wrote of the importance of fruit. The main benefits to fruit-growing were as follows:

- Mineralized water, making fertilizers unnecessary and increasing the frequency of fruit crops (an assertion they took so far as to say that Boulder fruit-growers could expect annual harvests where eastern farmers would have to wait for a good crop every 5 years).
- The nearby markets of Denver and the mining camps.

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<sup>18</sup> *The Irrigation Era*, September 1897, Call No. 401-19-2, Carnegie, 4.

<sup>19</sup> *The Irrigation Era*, 1897, 5.

<sup>20</sup> *Ibid.*

- The Boulder County Fruit Growers' Association, which helped supply growers with the necessary materials for shipping and accessing markets beyond the state, as well as those in Denver.<sup>21</sup>

## Homesteading

One of the main reasons settlers planted apple trees in Boulder was for family use on ranches and homesteads. In the first decades of Boulder's history, many people grew their own food in orchards and gardens, since local, fresh food in the form of familiar crops was scarce.<sup>22</sup> While the origins of many of these trees is unknown, families likely carried some seeds or saplings from their homes in places like Ohio and Missouri. In fact, the man often credited with bringing the first domestic apple trees to Boulder County, George Webster, was reported to have done so by wagon from the Midwest. Families also likely ordered materials from local nurseries and catalogs, and some may have taken grafts and young trees from neighbors. Below are two examples of families that grew apple trees for their own use and for small business at the local markets.

**Yockey Family.** Iciminda and Levi Yockey owned 10 acres of land near Arapahoe and Folsom, where they grew over 150 apple trees and over 50 cherry trees. Levi Yockey had come to Colorado from Kansas in 1889 and Iciminda was the daughter of David Baumert and Iciminda Harper, who came to Colorado in 1860 and ran a general store just south of Longmont. The Yockeys sold their fruit at a local fruit stand. The Yockeys also sold fruit up in the mining camps, while her children kept the downtown fruit stand running. The Yockeys had five daughters and three sons, and the work of Iciminda and her children is a reminder of the ways

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<sup>21</sup> *The Irrigation Era*, 1897, 11.

<sup>22</sup> Silvia Pettem, *Boulder: Evolution of a City* (Boulder, CO: University of Colorado Press, 1994).

women and children supported the local economy by selling family produce and wares around town.<sup>23</sup>

**Brierley Family.** John Brierley came from further afield, arriving in Colorado from England in 1858. He homesteaded the area around what is today 201 Pearl Street, growing vegetables and fruit, including apples, which he and his family sold in the nearby mining camps. Brierley and his son built the armory at 934 Pearl Street, which they leased. The Brierleys are an example of the mixed incomes of early fruit growers, who relied on multiple sources of income and practiced different skills.<sup>24</sup>

### Commercial Interests

“Do You Want a Farm, Orchard or Vineyard? In a land of almost perpetual sunshine, a healthy or invigorating climate, free from blizzards and cyclones, pleasant summers, mild winters, and where you are surrounded by the best market on the face of the globe. Colorado Welcomes You.” in *Arid America*.<sup>25</sup>

Through the nineteenth century, some people were skeptical that Colorado could be a good place for fruit trees. At the same time, farmers were beginning to experiment with various trees from back east.<sup>26</sup>

Today, remnants of commercial orchards are Boulder’s apple hotspots. For example, North Boulder is one of the best-known areas for apple trees largely due to the remnants of orchards planted by commercial growers Joseph Wolff and the Newland family. Despite the

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<sup>23</sup> Family portraits and documents of Levi and Iciminda Baumert Yockey, Call No. 420-Yockey-Levi, Carnegie; Historical Data Record of the Boulder County Pioneer and Fourth of July Committee, Carnegie, pp. 242-243.

<sup>24</sup> Historic Building Inventory Record for 201 Pearl Street, 1986, Call No. 780-Pearl-201, available online via Carnegie; John Brierley House in the Schoolland Slide Collection, 1890-1971, Call No. 601-4-12-Photo; 934 Pearl Street Historic Building Inventory Record, 1986, Call No. 780-Pearl-934, available online via Carnegie.

<sup>25</sup> “Do You Want a Farm, Orchard, or Vineyard?”, advertisement in *Arid America*, 1896, Call No. C333.730978.A692, DPL.

<sup>26</sup> Steinel, 1926, 506.

skeptics, apples were able to make a brief go as a viable commercial venture. In the late nineteenth century, the transition from subsistence apples to commercial ones followed nationwide changes in horticulture. In the early 1800s, grafting was a specialized skill, the purview of a few artisans mostly working back east. By the 1850s, these men started to develop a professional identity as horticulturalists, offering their cultivars and skills locally and then nationwide through catalogs and professional organizations.<sup>27</sup> While the first apples in Boulder likely came around early 1860s, it took time for the area to gain recognition as a commercial apple region.

The first professional society of agriculturalists in Boulder, the Boulder County Agricultural Society, was organized in 1869.<sup>28</sup> By 1885, state officials identified a growing apple “industry” in Colorado, one that was recognized nationally for producing delicious apples, if not for the number of apples grown. However, at that time, apples were mostly coming out of the “Grand River Valley,” northwest of Grand Junction, and the San Luis Valley.<sup>29</sup> In 1893, the Boulder Fruit Growers’ Association was founded.<sup>30</sup> The growers embraced the aims of trends of customer service and industry standardization, reflected in their articles of incorporation:

For the purpose of promoting and encouraging the industry of fruit growing, to secure fair prices for said fruit, establish a better market and secure better

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<sup>27</sup> David H. Diamond, “Origins of Pioneer Apple Orchards in the American West: Random Seeding versus Artisan Horticulture,” *The Agricultural Society* 84 (2010): 423-450; Cheryl Lyon-Jenness “Planting a Seed: The Nineteenth-Century Horticultural Boom in America” *The Business History Review* (2004): 381-421.

<sup>28</sup> Wolfenbarger, 2006, 12.

<sup>29</sup> *Colorado and Its Agricultural Resources*, 1885, Call No. C63U.9788.C719ag, DPL. Parts of what is today called the Colorado River were called the Grand River until 1921. Russell D. George, Topographic Map of Colorado, 1913, Colorado State University Special Collections. Available online.

<sup>30</sup> Wolfenbarger, 2006, 13

shipping facilities, to buy, sell, and raise the standard of fruit, and have the same reach the customer in the best possible condition.<sup>31</sup>

The Association largely focused on the canning industry (out of Longmont) in terms of the profit it generated.<sup>32</sup> However, apples were likely never part of the canning industry given that they are not mentioned specifically where other fruit is and given that apples were generally preserved in other ways, like cider and sauces.

A report on fruit interests in the area from 1891 gives some insight into the feelings of the day about professional agriculturalists making a living and the role of apples and experimentation in that process:

“The men whose names now appear in the lists of exhibitors at fairs are the pioneers -- men who are now reaping the reward of that faith which, several years ago, induced them to plant orchards, regardless of the commonly expressed sentiment that fruit could not be grown in Colorado.”<sup>33</sup>

“Much credit is due these pioneers in fruit growing for their persistence during the experimental stages; with no precedents to guide them, they were obliged to learn by experience all the steps in fruit growing by irrigation.”<sup>34</sup>

“The apple is *the* orchard fruit of the district.”<sup>35</sup>

In 1891, it was estimated that the land in fruit was at 500 acres, with 200 additional acres planted that year. The majority of this was in the St. Vrain Valley, which the report claims started in 1866 with some fruit trees and which serve mountain towns and Denver markets.<sup>36</sup> The report says that the majority of orchards in the city of Boulder were smaller than those in the St. Vrain,

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<sup>31</sup> The Boulder Fruit Growers' Association Articles of Incorporation, filed in 1893, reprinted in *Boulder Firsts* at Carnegie. The Association remained functional until at least 1918.

<sup>32</sup> Wolfenbarger, 2006, 13, 22.

<sup>33</sup> Charles S. Crandall, *A Preliminary Report on the Fruit Interests of the State*, Bulletin No. 17 from the State Agricultural College, 1891, BATP Collection, 3-4.

<sup>34</sup> Crandall, 1891, 4.

<sup>35</sup> *Ibid*, 6.

<sup>36</sup> *Ibid*, 7.

and Boulderites grew mostly strawberries, grapes, and other, smaller fruits.<sup>37</sup> This report estimated the Boulder County production in 1890: 500 acres in orchard with 29,616 bushels. (The next was peaches at 168 barrels).<sup>38</sup>

Apples were profitable. In 1859, apples were scarce in Colorado, allowing a Mr. John Martin to sell his apples from a stand in Denver for \$1.25 each, what a government report later described as their weight in gold.<sup>39</sup> There was also a demand for apples from out of state, potentially fueled by the glowing words coming out of the 1904 World's Fair: "Colorado is represented by a magnificent display of all standard varieties of apples that grow to such astonishing perfection in the irrigated sections of that State."<sup>40</sup> Selling Colorado's apples was important to local and state government officials, who took the opportunity to sell the state at every turn. As Paul Wilson, the Commissioner-in-Chief of the State Board of Horticulture, put it,

"The fair is an advertising proposition – that is all any fair is. It is where we are endeavoring to show our products are better than any other in the Union. That is the way that California got her reputation. I promise you that we will not abuse your confidence, and we will do all we can to advertise Colorado as the best fruit state in the Union. We want you to be as generous as you can, in order to give Colorado as good a showing as it is possible to give any state. We are sure to take the prize if you will help us. Within the last couple of years some California people have settled in Colorado, and have been evaporating fruit with wonderful success, and a large quantity of this will be at the fair."<sup>41</sup>

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<sup>37</sup> Crandall, 1891, 7.

<sup>38</sup> Ibid, 8.

<sup>39</sup> Steinel, 1926, 502.

<sup>40</sup> A.C Cantley, "The Apple Show at the World's Fair," *Pacific Rural Press* 67, April 9, 1904. Available online. On out-of-state demand: Steinel, 1926, 501.

<sup>41</sup> Paul Wilson, "Colorado At the World's Fair, St. Louis, 2014," in Colorado State Board of Agriculture, *Annual Report of the State Board of Horticulture of the State of Colorado* (Denver, CO: The Smith Brooks Printing Co. State Printers, 1904), 48-50. Available online.



Professional associations were not the only ones drafting reports about the state of commercial horticulture in Colorado. In 1891, The Agricultural Experiment Station in Fort Collins published a bulletin titled, “A Preliminary Report on the Fruit Interests of the State.” These bulletins were available to Colorado residents, generally by written request to the station, and were part educational, part boosterism. Charles S. Crandall, who was in charge of the Fort Collins station, wrote the report that began in reverential tones for the orchardists of Colorado. “The men whose names now appear in the lists of exhibitors at fairs,” he wrote, “are the pioneers – men who are now reaping the reward of that faith which, several years ago, induced them to plant orchards, regardless of the commonly expressed sentiment that fruit could not be grown in Colorado. Much credit is due these pioneers in fruit growing for their persistence during the experimental stages [with] no precedents to guide them.”<sup>42</sup> Though he does not mention them by name, Crandall’s references to experimentation could have easily applied to the work that Joseph Wolff and George Webster, among others, were doing in Boulder County.

### **Selecting Cultivars**

Where did the cultivars in Boulder County come from? The short answer is, they came from all over the country, largely from east of Colorado, but also from California.<sup>43</sup> While it is difficult to know precisely what nurseries, salespeople, or catalogs sold Boulder’s first domestic apple trees, the nineteenth century was a time of change for apple cultivation that influenced the options available to Boulder residents. In the early 1800s, the majority of fruit trees were grown from seeds. There were a few artisans who practiced the art of grafting, but the reach of this

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<sup>42</sup> Crandall, 1891, 3-4; Stencil, 1926, 506.

<sup>43</sup> George W. Webster, “California Fruit Trees!”, 1870. Carnegie; Pettem, 1994.

information and skillset was limited. Over the century, as horticulture developed into a “scientific” profession, nursery owners grafted their fruit trees and began to create names for the varieties they propagated. This creation of the idea of a “cultivar” was also a way of regulating the market, so that practitioners across the country could trade and reference specific types of apples. Adaptable and tasty varieties, like the Ben Davis, benefitted from the nascent apple market, and consumers started to make specific requests, creating popular varieties by the 1840s and 1850s.<sup>44</sup> At the same time, horticulturalists started targeting people moving west to promote the use of cultivars over seedlings.<sup>45</sup> Settlers in Boulder were shaped by these trends, which we can see in the apple varieties that they grew (see Table 1).<sup>46</sup> While we consider these “heirloom” or “heritage” apples today as remnants of a different time, they were very much connected to familiar trends of marketing and professionalization within a national market.

Once in Colorado, there is some record of how cultivars were selected to be grown here. For example, nurseries in Denver would provide a wide variety of trees so that growers could choose one of every different kind of tree to see what worked best.<sup>47</sup> In addition to local growers’ associations, there were statewide shows put on by the State Horticultural Society that would comment on the hardiness and success of different types of apples.<sup>48</sup> Government officials also conducted experiments with apples and other fruits to determine which were the hardiest cultivars.

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<sup>44</sup> Emily Pawley, “Cataloging Nature: Standardizing Fruit Varieties in the United States, 1800-1860,” *Business History Review* (Autumn 2016): 405-429.

<sup>45</sup> Diamond, “Origins of Pioneer Apple Orchards in the American West”; Lyon-Jenness, “Planting a Seed.”

<sup>46</sup> There is also evidence of the popularity of nurseries by the 1880s. Crandall, 1891.

<sup>47</sup> Steinel, 1926, 506.

<sup>48</sup> *Ibid*, 515.

## The End of an Era

What happened to Boulder's early apple trees? Some combination of grasshoppers and other environmental factors, government pressure, and age likely finished off many of them. There are few extant documents that directly discuss apple die-off, but a few sources give a general sense of what happened.

According to Crandall, at the Agricultural Experiment Station, apple trees planted in the St. Vrain Valley in the 1860s were gone by 1891. Crandall observed, "little [remains] of this first planting, which was made under all the adverse circumstances with which the pioneer had to contend."<sup>49</sup> Crandall may have been suggesting that the first plantings in the Boulder area were not sufficiently robust.

Another possible reason for the decline of apple trees was a lack of governmental support for fruit production. In 1888, the USDA made an official statement that Colorado was unfit for fruit culture due to its climate.<sup>50</sup> The USDA Extension Service was unsupportive of Colorado varieties, which were not commercially viable by the 1920s.<sup>51</sup> It is unclear how much effect this declaration had in decreasing the overall numbers of apples or the care apple trees received. However, the USDA did have an effect on the types of apples grown in the region. According to E.P. Sandsten, writing in 1922, the USDA discouraged many local cultivars, opting instead for a few approved varieties for the climate and short growing season.<sup>52</sup> Sandsten also observed that

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<sup>49</sup> Crandall, 1891, 7.

<sup>50</sup> Steinel, 1926, 507.

<sup>51</sup> Schuenemeyer, 2015; Steinel, 1926, 507.

<sup>52</sup> E.P. Sandsten and C.M. Tompkins, *Orchard Survey of the Northeastern District of Colorado* (Fort Collins, CO: The Experiment Station, 1922), 7.

there was little, if any, supplemental or family planting of apple trees by the 1910s, and that any planting that had occurred had “barely kept pace with the dying and removal of trees in the older [family] orchards.”<sup>53</sup> These orchards were subsequently turned into grazing land for cattle.

Sandsten and C.M. Tompkins, his fellow surveyor, stated that this was due to neglect, but it is also possible that these trees were aging out naturally, as the oldest would have been between 30 and 50 years old.

There is another potential factor in the decline of the original apple orchards. The 1920s timing coincides with the rise of Temperance Movement and Prohibition, which influenced Boulder society and politics for a hundred years, from the late nineteenth century to the 1960s. However, so far, there has been little evidence of what, if any, effect these anti-alcohol movements had on apple trees in the area. A recent publication from the Montezuma Orchard Restoration Project (MORP) summarized that the negative effect of the Temperance Movement on apple orchards is likely almost entirely a myth, in large part because commercial cider was not popular by the time of the mainstream Prohibition movement (even though Colorado’s Temperance Movement gained force earlier than in the nation as a whole) and because apple fermentation was used in many nonalcoholic products, such as vinegar. In their survey of national newspapers, MORP found that environmental events were responsible for the destruction of apple orchards across the country in the early twentieth century.<sup>54</sup>

Environmental factors were, likely, the most important factor.<sup>55</sup> However, the specifics are hard to determine. Based on a survey of local newspapers, searching for the terms “frost,”

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<sup>53</sup> Sandsten and Tompkins, 1922, 3.

<sup>54</sup> Adalyn Schuenemeyer, “Burn them! a myth of cider, orchards, and prohibition,” *Malus* 11, (2020).

<sup>55</sup> Wolfenbarger, 2006, 7.

“grasshoppers,” “winter kill,” “drouth,” “dry winter,” and “drought,” between 1859 and 1950, there were few references to large-scale events . There were even a few articles in the 1870s and one in 1891 that said that reports of grasshoppers and the potential for grasshoppers were exaggerated.<sup>56</sup> That said, there were many articles about how to get rid of grasshoppers, as well, suggesting they were a problem to some extent, and there were articles that suggested that there were at least comparatively bad years in 1874, 1875, and 1936, and that there was a drought in 1904.<sup>57</sup>

## **APPLE SITES OF INTEREST IN THE CITY OF BOULDER**

### **Doudy-DeBacker-Dunn Homestead OSMP Property**

The Doudy-DeBacker-Dunn Homestead is located near the South Mesa Trailhead in the South Mesa Cultural Landscape. Named for the families who owned the land, the area has been irrigated by the Davidson Ditch since 1863 and features at least one historic apple orchard.<sup>58</sup> There are at least nine apple trees around the Dunn House today.

This property presents an opportunity to describe the sometimes patchy process of dating historic apple trees. While it is impossible to date the surviving trees precisely, it is likely that at least some of them are remnants of the original orchards that were planted sometime after the 1860s. In addition, there are two photographs from 1887 of the John DeBacker house with what may be an apple tree next to the house.<sup>59</sup> A report from 1993 suggests that the remnants of the old

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<sup>56</sup> “The Grasshopper Lie,” *Boulder Daily Camera*, July 18, 1891. Available via coloradohistoricnewspapers.org.

<sup>57</sup> “Year In, Year Out” advertisement for the Great Western Sugar Company, *The Lafayette Leader*, April 13, 1937. Available via coloradohistoricnewspapers.org. “College Notes,” *The Silver and Gold*, University of Colorado Boulder publication, Volume XIII, Number 12, December 1, 1904. Available via coloradohistoricnewspapers.org.

<sup>58</sup> South Mesa Trailhead Field Results: Doudy-DeBacker-Dunn Homestead (5BL3863), OSMP Report.

<sup>59</sup> Thank you to Chance Nelson with B ATP, who gave a second opinion on the identity of the tree in the photographs. He noted that the trunk appeared straighter and less textured than an apple tree, but that it was within the size and shape of an apple tree. Photographs from Carnegie, Call No. BHS-214-1-58 and BHS-S-405 Photo.

orchard existed at that time.<sup>60</sup> While the report does not cite any direct evidence for this, or identify the trees in question, it can be taken as a potential lead that some type of historic tree lasted until the early 1990s. The City purchased the property in 1969, and it is unlikely that any trees were planted after that time. Given the state and character of some of the trees today, it is likely that these are the same trees from 30 years ago. One of the flaws in this way of trying to date apple trees is that they can reproduce on their own and so even some of the oldest trees on a property may not be “historic” trees as traditionally considered, i.e., as trees planted by humans. In general, wild-seeded apple trees do not produce tasty fruit, and definitely do not produce fruit that can be identified as a particular cultivar. Given that there are three trees surrounding the Dunn House that have been genetically identified as historic varieties, these individuals are likely historic in some capacity, even if they cannot be traced all the way back to the first orchards.

The three cultivars identified around the Dunn Homestead are the Ben Davis, the Fameuse, and the McMahon (see Table 2). The **Ben Davis** was one of the most successful varieties of the nineteenth century.<sup>61</sup> In 1922, there were 1,224 Ben Davis trees in Boulder County and 399 in the city. The Ben Davis originated in either North Carolina or Virginia in the late eighteenth or early nineteenth century and made its way to Kentucky, where it was grafted and sold in nurseries for the first time. By 1905, the Ben Davis was one of the most popular apples in the country.<sup>62</sup> As Rowan Jacobsen writes in *Apples of Uncommon Character: 123 Heirlooms, Modern Classics, & Little-Known Wonders*, “To this day, [the Ben Davis] is one of the easiest apples to grow, setting large crops of big, cosmetically perfect, Methuselah apples

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<sup>60</sup> Colorado Cultural Resource Survey Reevaluation: Management Data Form, 1993, OSMP Collection.

<sup>61</sup> Union Pacific, 1889, 23; Sandsten and Tompkins, 1922.

<sup>62</sup> Daniel Bussey, *The Illustrated History of Apples in the United States and Canada* Vol. 1 (Mount Horeb, WI: JAK KAW Press, LLC, 2016), 338-340.

every year. It was known as the Mortgage Lifter for the profits it bought its growers.”<sup>63</sup> Not only was the Ben Davis relatively easy to grow, it also featured a tough exterior that made it good for rail transport (though bad for fresh eating). Despite its popularity, it was a direct casualty of the Red Delicious taking over the national market from the Pacific Northwest.<sup>64</sup>

In 1922, there were five **Fameuse** trees in Boulder County, all within the City of Boulder.<sup>65</sup> The Fameuse may have originated in Canada in the eighteenth century, though there are some reports of a similar cultivar in France in the seventeenth century. Regardless, its history ties in closely with French settlers in North America and the cold regions they inhabited. It was a good variety for dessert recipes and was popular for home-growing and commercial-growing.<sup>66</sup>

Finally, the **McMahon** cultivar is the youngest of the three. It originated in Wisconsin in the 1860s, named after Mrs. Isaac McMahan (sic) and is a good dessert apple.<sup>67</sup> In 1922, there were six McMahon apple trees in the county, all in the City of Boulder.<sup>68</sup>

### **“Newland’s Addition” Neighborhood Directly adjacent to and surrounding OSMP Property**

The Newland’s Addition, or Newland’s Neighborhood, or simply, Newlands, encompasses land that the Newland family purchased around 1860. They created a venerable fruit farm, which was featured in the 1897 *Irrigation Era* publication. The editor of the magazine visited Boulder and toured various fruit-growing operations. The editor visited the Newland’s farm, where Mrs. Newland reported that she owned 140 acres, 20 of which were dedicated to

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<sup>63</sup> Rowan Jacobsen, *Apple of Uncommon Character: 123 Heirlooms, Modern Classics, & Little-Known Wonders* (New York: Bloomsbury, 2014), 7.

<sup>64</sup> Jacobsen, 2014, 7.

<sup>65</sup> Sandsten and Tompkins, 1922.

<sup>66</sup> Bussey, Vol. 2, 2016, 439-440.

<sup>67</sup> Bussey, Vol. 4, 2016, 232.

<sup>68</sup> Sandsten and Tompkins, 1922.

orchards.<sup>69</sup> The Newlands made their money through a combination of farming and real estate development. There is a story that the Newlands divided up their land in such a way that every plot had an apple tree. This story came up at the Newland's Neighborhood Community History Day in November 2019 and in discussions with the former archivist at the Carnegie Library for Local History, Wendy Hall. However, no concrete evidence of their intentions has surfaced. Regardless, when the Newlands divided up the land some of the plots did contain apple trees, and the early subdividing of the orchard is perhaps one of the reasons why some apples in this area have survived destruction.<sup>70</sup>

Several trees in the Newland's Addition have been tested by the Boulder Apple Tree Project. A Ben Davis tree was identified east of 5<sup>th</sup> Street and north of Alpine Avenue. (See "Dunn Homestead" section for more on the Ben Davis.) There is also a cluster of trees on OSMP land off of Grape Lane west of 4<sup>th</sup> Street.<sup>71</sup> In general, clusters of unidentified trees can signify a couple of different histories. It is possible that this cluster was part of an orchard, perhaps even one that was created by someone who experimented with different cultivars, creating unique varieties. Another possibility is that the trees are a cluster of wild-seeded trees. Given the proximity of the Silver Lake Ditch, it is possible that seeds were transported by gushing waters and deposited in this location. This is supported by the fact that in a 1938 aerial photo, there does not appear to be an orchard.<sup>72</sup> One other option for testing this theory remains, which is to conduct a taste survey of the apples (in other words, taste them and record their astringency,

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<sup>69</sup> *The Irrigation Era*, 1897.

<sup>70</sup> R. Laurie Simmons and Thomas H. Simmons of Front Range Associates, Inc., Boulder Survey of Historic Places: Newland Addition, 1995.

<sup>71</sup> Visit <https://appletreeproject.org/map> for an interactive map with updated genetic and location information for trees and orchards surveyed by BATP.

<sup>72</sup> Aerial photographs available online via the Earth Sciences & Map Library Historical Aerial Photographs of Colorado. Contact Chance Nelson, undergraduate research assistant with BATP, at [Chance.Nelson@colorado.edu](mailto:Chance.Nelson@colorado.edu), for more information on aerial maps and potential orchards.



sweetness, bitterness, and fresh-eating) during a good apple season. If the apples are generally small and bitter, or “spitters,” it is likely that the apples are wild-seeded.

### **Manchester Farm On OSMP Property**

Manchester Farm was owned by Herman and Sylvia Manchester until 1947 and grew alfalfa, corn, and oats, and raised chickens and cows for dairy. At some point, they planted an orchard of cherry and apple trees, which they sold on the side of the road and at markets like the Ideal Market in Boulder.<sup>73</sup> B ATP surveyed thirteen trees at this location (Table 3). Genetic testing of these trees is planned for spring 2021, funding dependent, and will confirm whether these trees are remnants of a historic orchard.

## **COMMUNITY ENGAGEMENT**

Apple enthusiasts sometimes refer to rare, historic varieties as “lost” cultivars. Yet, many of the apple trees in Boulder have never been lost. People across the city and county know about the trees, use them, and care for them, even if there has been a lack of formal, unified preservation. B ATP has conducted dozens of interviews with property owners since 2018, and many of those interviews have revealed stories of neighbors caring for apple trees together, sharing them as a source of amusement for children on the block, and holding harvest and cider-pressing parties. Those interviews were the inspiration for developing “Community History Events” to bring neighbors together and conduct a group interview about neighborhood apples. The goals for these events were to more efficiently gather information about apple trees, share the latest genetic and historic findings from B ATP, and learn more about the community history of the trees (see “Methods” section).

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<sup>73</sup> OSMP Site Report for Manchester Farm (5BL8062) at 3282 75th Street in Boulder.

At the Newlands Community History Event in November 2019, the following locations were represented:

- Two people from Newlands, near Alpine Avenue and 5<sup>th</sup> Street.
- Two people from Wonderland Hills.
- One person from Lower Chautauqua.

Attendee responses included:

- The Newlands couple shared that they had lived on their property since 2003 and they had one apple tree. Their house was historic, originally built around 1900. *Their apple tree, which BATP tested, is likely a New York Pippin. The New York Pippin is an eighteenth-century cultivar from New York State.*<sup>74</sup>
- One of the Wonderland Hills residents shared that she had been at her property since 2013 and the house had been built in 1975. She had one apple tree, which produced yellow fruit and was an “old crab apple.” She shared that 2014 had been a good year for apples. She also shared her upkeep regimen for the tree treatment and the fact that bears enjoy the fruit.
- The Lower Chautauqua resident shared that he lived in a 1948 house and that there were apples, and people caring for them, all over the neighborhood. He confirmed that 2014 had been a great season and shared that he and his neighbors had made cider that year.
- When asked about challenges and values, the group responded that they thought the apple trees provided a way to think about sustainability, one that emphasized a connection to the local environment. Attendees also stated that the trees were an opportunity to engage younger residents, because kids love the trees. They were worried about the trees being cut down and stated that it was necessary to plan ahead to protect the trees. They emphasized as a group that the trees were a public resource and that apples had many uses for people and for livestock. Highlights include:
  - “A 100-year-old tree has a lot to say.”
  - “You’re living in your own orchard.”
  - “[These trees] can foster other ways of thinking about sustainability.”

In future events with similar goals, recommendations for changes include:

- To recruit more directly from the neighborhood and limit the interview to people from the same historic area.
- To host the event in a neighborhood park or in someone’s backyard.
- To encourage attendees to bring physical items or artifacts and pictures of their trees.

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<sup>74</sup> A historic inventory from 1995 and an assessor’s card from before 1956 did not provide any clarity about the presence or age of apple trees on the property. 505 Alpine Avenue real estate appraisal card, 1929-1956, Call No. 880-Alpine-505. Part of the Boulder County Real Estate Appraisal Collection, Carnegie; 505 Alpine Avenue historic building inventory record, 1995, Call No. 780-Alpine-505. Part of the Historic building inventory record reports 1985-2010, Carnegie. Both available online. Martin McGann, “Apple Cultivars in the Lower Hudson Valley Prior to 1860,” Sleepy Hollow Restoration, Inc., Tarrytown, NY, 1987.

- To begin the recording as soon as the event starts, rather than waiting for the “group interview” section. Attendees at the 2019 event were highly engaged and starting sharing and asking questions during the grafting demonstration and the history presentation, which would have been valuable to capture for future reference.
- To share the grafting demonstration, or any other educational elements, until after the “group interview” section.
- To incorporate a follow-up survey requesting any additional information or resources from the attendees. This would also be an opportunity to follow up on any unclear and unfinished statements in the “group interview” recording.

## CONCLUSION

Much can be said about the ecological benefits of historic apple cultivars – many of them are well-adapted to low levels of care and to the local environment, some of them show signs of being drought-tolerant and fire blight-resistant, and they provide a buffet of tastes unlike many of us today have never known.<sup>75</sup>

What of their historical and cultural benefits? There are three main benefits of protecting and promoting historic cultivars to the city’s history and culture. First, these apple trees helped shape Boulder into what it is today. Much in the way that a city or town invests in the protection of historic landmarks to honor and repurpose the past, these apple trees can be preserved as markers of Boulder’s agricultural history and as resources to be invested in now.<sup>76</sup> Second, the legacy of apple trees helps to knit together Boulder’s downtown history with the history of the surrounding areas of the city. Downtown Boulder, with its nearly 150-year-old university and its

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<sup>75</sup> For similar local genetic studies of apple trees, and more information on their ecological and genetic importance, see Briana L. Gross, Marshall J. Wedger, Marlyn Martinez, Gayle M. Volk, and Cindy Hale. “Identification of unknown apple cultivars demonstrates the impact of local breeding program on cultivar diversity,” Short Communication for Springer Science and Business Media, *Springer Nature*, 2018.

<sup>76</sup> Trees are rapidly becoming a part of formal historic preservation projects across the country. In fact, Colorado’s own Montezuma Orchard Restoration Project received a State Historic Fund grant. For information on efforts integrating trees into historic preservation, see Susan A. Dolan, *Fruitful Legacy: A Historic Context of Orchards in the United States with Technical Information for Registering Orchards in the National Register of Historic Places*, National Park Service (Washington, D.C.: U.S. Government Printing Office), 2009. Chapter 3 has a good historical context for the late nineteenth century, as well.

numerous historic residential and commercial structures, is a clear center of the city's history and culture, but in the history of apples, it has more in common with the agricultural zones further afield. The recognition of this history can help overcome zoning and density distinctions between less developed areas, such as south Boulder, and the downtown area, as well as the mistaken idea that some of the more recently developed areas, such as in east and north Boulder, are any less historic than the downtown area. Finally, protecting historic apple trees, especially those in denser or more developed areas of the city, can help promote sustainability initiatives by combining environmental considerations with historical ones.

In doing this work, there are two historical observations that are important to get right. First, while there is a popular and romantic image that independent, even isolated, families founded and fueled Boulder's first apple orchards, the breadth of apple development had the effect of knitting families and communities together, even those that lived on generally self-sustaining homesteads. Second, the private ownership of early apple orchards was balanced, in some ways, with the sale and distribution of local apples throughout the immediately surrounding area, meaning that while a few people owned the trees themselves, many more people in the vicinity were able to taste and use them. Today, the history of private ownership and land development has meant that many of the remaining apple trees live on private property, where homeowners – either as the tree owners themselves or their neighbors – have access to the fruit. Organizations such as Community Fruit Rescue help to share the abundance of a bumper crop, and it is important to share the historic, gastronomical, and nutritional benefits of local apples with the broader Boulder community.

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## TABLES

**Table 1: Cultivars in the City of Boulder, 1922**

Cultivars in the City of Boulder according to 1922 Orchard Survey (no location data).	
Cultivar	Number in City of Boulder
Jonathan	591
Ben Davis	399
Wealthy	278
Gano	140
Yellow Transparent	139
Oldenburg	80
Winesap	58
Northern Spy	55
Plumb Cider	35
Red June	35
Delicious	30
Missouri	30
Grimes	20
Whitney (crab)	17
Haas	12
Northwestern Greening	10
Chenango	9
McMahon	6
Walbridge	6
Fameuse	5
Utter	5
Early Harvest	4
Red Astrachan	4
Black Bellflower	3

**Table 2: Apple Trees Sampled at Dunn Homestead**

Apple Trees Sampled at Dunn Homestead Boulder Apple Tree Project (BATP), Preliminary Results.					
Genus	Species	Given Name	Genotype	Latitude	Longitude
Malus	domestica	Ben Davis	3136	39.9391806	-105.26031
		Fameuse	2981	39.9393022	-105.26053
		McMahan	3116	39.9392626	-105.26043
		Ben Davis	3136	39.9391503	-105.26024
Unknown				39.9393277	-105.26003
				39.939076	-105.26048
				39.9391814	-105.26045
				39.9392287	-105.26027

**Table 3: Apple Trees Sampled at Manchester Farm**

Apple Trees Sampled at Manchester Farm Boulder Apple Tree Project (BATP), Locations of Surveyed Trees.					
Genus	Species	Given Name	Genotype	Latitude	Longitude
Untested				40.033875	-105.17786
				40.033985	-105.17773
				40.0338	-105.17784
				40.033795	-105.17769
				40.034058	-105.17778
				40.033776	-105.17766
				40.034089	-105.17774
				40.033881	-105.17766
				40.034072	-105.17767
				40.034056	-105.17762
				40.020483	-105.18114
				40.034179	-105.17758
				40.034248	-105.17766