



# THE APPLE CORE

## OFFICIAL JOURNAL OF THE JOHNNY APPLESEED SOCIETY



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### Museum Update

(May 20, 2023) The Johnny Appleseed Foundation had a productive May meeting, dealing with the many chores ahead as we prepare for the Museum reopening, now set for November.

The Final design details for the Museum have been approved. Work on resurfacing the floors will occur early in July. Staff work preparing the many explanatory text panels is ongoing, and according to Museum director Mikaela Prescott, is even ahead of schedule. The design team is meeting with the Exhibit Concepts staff monthly, and that may change to biweekly as the install date nears.



*View of the new Ann Corfman Children's Room*

There is still some building upgrading to do: UV film for windows, a security door for the rear exit, and some windows in need of replacing were all projects approved at the meeting. A donation to help with the HVAC improvements is in the works, with more details expected as the donor begins a new fiscal year in July.

Fundraising efforts continue through both mass mailings and grant opportunities. One major focus in the next few months is on seriously expanding the mailing list: mailings right now reach only about 200 potential donors.

The Johnny Appleseed Society has once again been invited to participate in Fort Wayne Indiana's Johnny Appleseed Festival, the first time for the event post-Covid. Thousands attend this weekend event, held September 16-17 this year, which features vendors and

educators alike in period dress in the park holding the likely burial site of John Chapman (*see photo below*).



*Spinning demonstration at the Johnny Appleseed Festival, Fort Wayne*

Director Mikaela Prescott is scheduled to speak to the Champaign County Retired Teachers' Association, in order to increase awareness of Educational Center resources ahead of the new school year. In the past, the Association has been a source of volunteer docents, as well as a helpful bridge to local school systems.

Meanwhile, a local Boy Scout has proposed doing his Eagle Scout project as part of the ongoing Children's Garden and general landscaping work, under our gardener Amy Knueven.

Finally, to gear up for accomplishing so many projects, the Foundation is looking to add a couple of new members: more news on that front is expected later this summer.

### A Farewell, and a New Beginning

*by Jeff Taylor*

My wife, Judith Maule, and I have spent the last five years working with the Johnny Appleseed Society, the Foundation, and the *Apple Core*. We came to the work when I joined the faculty of Education at the former Urbana University, where the Museum was then housed. We both joined the Appleseed Society, later becoming docents, and serving terms as officers. We were at Fort Wayne for the last pre-Covid Appleseed Festival, and we were working with the Society on re-arranging displays after the move to Browne Hall, when in 2020 the University shuttered, and placed the Museum in limbo.



Jeff & Judith

The *Apple Core*, which replaced an older quarterly, the *Apple Seed*, was initiated that same spring as a vehicle for rousing interest in the Museum's future. I have been the editor and main author, with Judith taking up the *Teacher's Corner* articles and copy proofing; Joe Besecker, the late Ann Corfman, Mikaela Prescott and Robin Ferriman have all made contributions.

This will be my last issue as editor of the *Apple Core*, and Judith's last *Teacher's Corner*. We know we are leaving the *Apple Core* in good hands, with Mikaela Prescott and Robin Ferriman taking over. Expect to see changes, as all things change, but expect to see the new editors bring to the *Apple Core* the highest degree of care for all things Appleseed, and to keep you, the reader, actively involved in the life and mission of John Chapman. Join us in wishing them the very best,

Jeff Taylor & Judith Maule

### **From the Archives:**

by Mikaela Prescott, Director

Johnny Appleseed Educational Center & Museum

### **On Love and Type Faces**

"That's hard to explain in two sentences...are you familiar with the basic concept of Yin and Yang?"

Betsy Coffman, Swedenborgian minister as well as President of the Johnny Appleseed Foundation had probably got more than she bargained for when I had called asking her for a "simple explanation" of Swedenborg's *Conjugal Love*. I should have guessed as much: Swedenborg hardly wrote anything simple to understand for the layman.

"It's the idea really that, when people are in love, they can and should grow and learn together, their spiritual connection comes from God and is therefore sacred."

In a sense, to an untrained eye like my own, *Conjugal Love* is not dissimilar to a modern-day self-help and marriage counseling book. Of course, that is not all *Conjugal Love* is—in fact, even bringing it up is a pretty tense subject for some followers of Swedenborg, as the true meanings and translations from its original Latin are still hotly contested in some circles. I'll spare you the details and points of dispute as well as all the racy bits

about how men of the time were meant to grapple with the difficulties of lust.

I'm the Director of the Johnny Appleseed Educational Center and Museum, Mikaela Prescott, and this is *From the Archives*, a regular column in which I introduce you to the historical relevance of the material culture found here in our very collection. Today, we are looking at an American first edition print of Swedenborg's *Conjugal Love*. Our artifact is a book, printed in 1796 by Francis and Robert Bailey in Philadelphia. This particular book is nearly 230 years old, and is still in beautiful condition. (Fig. 1)

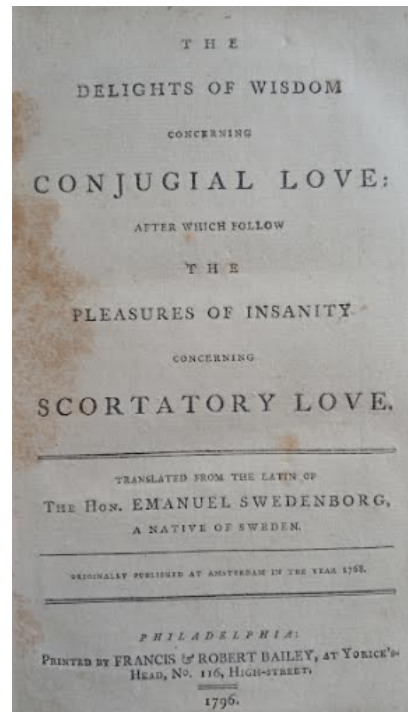


Figure 1. The Bailey edition of Swedenborg's *Conjugal Love*, from the Museum collection.

At a lengthy 521 pages long, it is astounding to find that someone clearly read every page: inside we find a shaking hand has annotated and disagreed with some of the translations therein, offering instead Latin words they feel would be more appropriate. In conference with a former history professor of mine and fellow palaeographer (student of historic handwriting), we decided the annotation pictured below (Fig. 2) reads as '*unem squis*' a translation of the Latin for 'you know one.' It is suggested as a replacement for the line "Know ye, that every one." Other annotations in the margins are not quite as clear, switching between Latin suggestions and English references.

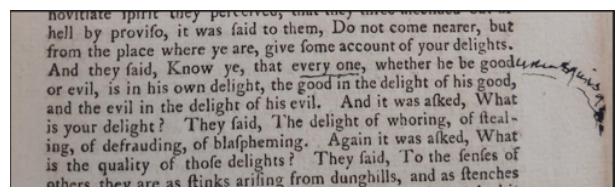


Figure 2. Handwritten marginal note in the text.

Each page has signs of age, but the book is is securely bound, with a suggestion from a handwritten note made on the front cover that it was rebound in 1850, and there is very minimal damage to the pages. First and foremost, beyond the title page is an apology from the translator, titled *Preliminary Observations By The Translator* (Fig 3).

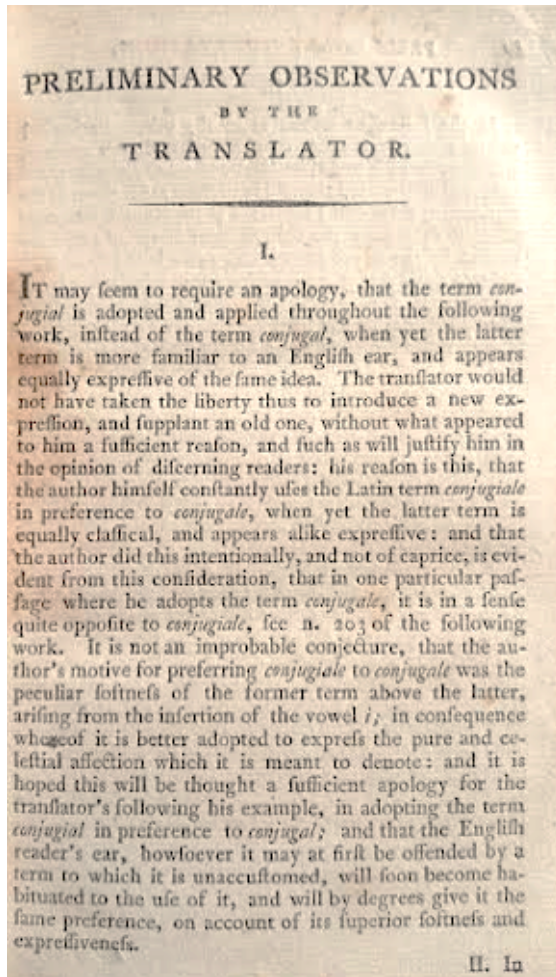


Figure 3. Translator's preface to Bailey's edition of *Conjugal Love*.

The translator apologizes that English-speaking audiences will have difficulty with the term “conjugal” due to the preference for the term “conjugal,” which is a similarly defined word and far more prevalent in common practice. The apology reads:

*The translator would not have taken the liberty thus to introduce a new expression, and supplant an old one, without what appeared to him a sufficient reason, and such as will justify him in the opinion of discerning readers: his reason is this, that the author himself constantly uses the Latin term conjugiale in preference to conjugale, when yet the latter term is equally classical, and appears alike expressive: and that the author did this intentionally, and not of caprice, is evident from this consideration, that in one particular passage...it is hoped this will be thought a sufficient apology for the translator's following his example...on account of its superior softness and expressiveness.*

Aside from the fact it is amusing to imagine an 18th century campaign which accounts for such a modern tactic as preemptive damage control, we find a unique hallmark of age in our copy of *Conjugal Love* within this very opening page. Due to the presence of a *swash* letter—a letter which has been stylized in print—it will appear to the modern eye that in the text (see especially the text in Figure 2), certain words are misspelled. (or should I [say mi]spelled?)

Anyone who remembers their upper-level math classes from high school or college may recognize this strange symbol, which looks like a lowercase ‘f’ without the cross bar as the *integral symbol*, used in calculus. Leibniz, the German inventor of the calculus, chose it as the initial letter of the Latin *summa*, or "sum." To the modern person, calculus is probably the first and last time we encountered the ‘j’, but in reality, this figure, in printing called the *medial S*, was used in accordance with an archaic set of rules that go back to the ancient Greek alphabet: The *round S* (which we know today as simply, ‘s’) would be used at the end of words like *hers*, or after an ‘f’, to avoid confusion in words such as *offset*, while the *medial S* (ſ) would be used at the beginnings and in the middle of words, as well as before hyphens.

Why is this ‘j’ so [special (so special)]? While the medial S was considered standard practice into the 18th century, in America we see it dissolve over time with the introduction and evolution of the Caslon typeface (see Figure 4). Developed in 1722 by English type-maker William Caslon (c. 1692–1766), the Caslon typeface was more or less the ‘Times New Roman’ of the late 18th century: it was the default aesthetic font used for any and all official documents, including our very own Declaration of Independence. Every few years, Caslon would come out with a new collection of typefaces, like any modern fashion designer would. By 1796, all of Caslon’s new typefaces were without the medial S.



Figure 4. The Caslon typeface

Of course, these were the days of the printing press, and changing typefaces wasn’t as easy as scrolling to the top of your Microsoft Word document and clicking. The print shops used *fonts*: drawers containing sets of all the

letters, numbers and symbols of a given typeface in a single size. When the Caslon typeface became the most acceptable one, any printer who could afford to do so quickly bought multiple fonts (one for each size) featuring the updated Caslon typeface. This meant that by the mid-1790s, when those Caslon fonts no longer featured the medial S, the J had been gently dissolved from most of major printing houses in America.

The printing press of Francis Bailey, who published our first edition of *Conjugal Love* in 1796, does make use of the medial S and is likely printed in one of the earlier Caslon fonts. To compare, view the large letters from the top row of *Fig. 4* to the title in *Fig 1*. Note how the serifs (hooks at the edges of letters) compare, such as the edges of the capital E and the divot on the top of the letter A. This is phenomenal and tells us that our copy of *Conjugal Love* was likely one of the last things printed with the medial S for the common consumer in our country, as that character was all but entirely wiped out of American documents by the early years of the 19th century.

## What AI Knows of Johnny Appleseed

Until recently, the thought of John Chapman and computer-based "Artificial Intelligence" (AI) systems occupying the same sentence would have seemed absurd. However, as recent news stories document, AI systems of surprising power are now rapidly being incorporated into the online search engines (Google, Bing, etc.) that many now use as research tools.

But how well do they really work?

What follows is my preliminary results after testing two AI tools: [GPT-4](#), the engine behind Chat GPT-Plus, which accepts prompts or queries, and constructs text responses in colloquial English based on texts available on the internet; and [Stable Diffusion](#), which accepts descriptive texts and produces images to match.

It is important to understand that both systems will produce different results from the identical prompt if you "ask" it repeatedly. Indeed, Stable Diffusion produces a choice of four images each time you prompt it. You may want to try the prompts I used yourself, to see what results you get. They will likely differ in some ways from my own results.

Let's begin with GPT-4 (the GPT stands for "Generative Pre-trained Transformer"), the latest version of OpenAI's work in the field. Unlike a Google search, which uses your prompt or query to search for thousands of sites with matching texts on the internet, GPT-4 has been "pre-trained" to respond with what amounts to a summary of the text on those sites, a single textual response. It does not indicate which sources it consulted, how it ranked their accuracy, or what other information (accurate or inaccurate) is left out. In this sense, it is like a research paper with no references: always a questionable affair.

So I asked it some questions to which I already knew the answers. My first question was about Chapman's time in Pennsylvania in the 1790s:

**My Prompt:** What was the relationship between Johnny Appleseed and the Holland Land Company?

**GPT-4:** *While both Johnny Appleseed and the Holland Land Company were active during the same time period and involved in land-related activities, there is no documented connection or direct relationship between the two. Johnny Appleseed's activities were more focused on planting and spreading apple trees, while the Holland Land Company was engaged in land acquisition and real estate transactions.*

This is factually untrue. The Holland Land Company held large tracts of land in both Venango and Warren counties in Pennsylvania, where Chapman was active. He is listed as a customer at two Company stores, though he did not purchase any land from them. He was not "warned off" by Company agents, as other potential squatters were, leading Robert Price, his major biographer (the text of whose book is available on the internet), to suggest that his planting activity was viewed by the Company as helping to promote land sales.

So there was both a documented relationship, and a conjectural one. We conclude that however extensive GPT-4's pre-training was, it did not include the foundational Chapman biography, or the several online sources that refer to it.

I next tried a more general prompt, to see if GPT-4 had any "knowledge" at all of Chapman's time in the Keystone State:

**My Prompt:** Where in Pennsylvania was Johnny Appleseed active?

**GPT-4:** *One notable area where Johnny Appleseed operated in Pennsylvania is the northwestern part of the state, specifically along the Allegheny River. He is said to have established nurseries and planted apple trees in places like Warren County and Venango County. These regions were part of the larger frontier during that time, and Appleseed's efforts were aimed at providing settlers with a sustainable source of food and potential income through apple orchards. It's important to note that Johnny Appleseed's activities in Pennsylvania, as in other areas, were not limited to a specific town or city but rather spread across the rural regions where he traveled. His exact routes and the specific locations of his apple tree plantings may not be precisely documented but are part of the folklore and legacy surrounding his life and work.*

This response is typical of GPT-4: Instead of a direct factual response, it replies in bland generalities, using many more words than necessary and slipping into trouble as a result. "One notable area" obscures the fact that the upper Allegheny valley (which only later became Warren and Venango counties) is the *only* area of the state for which we have documentary evidence of Chapman's presence. There are stories—some would say traditions—that place him in the Wyoming Valley in

northeastern Pennsylvania, or in Greensburg, southeast of Pittsburgh. But these are on an entirely different footing from the trading post ledgers, census book and oral accounts of Chapman's time—centered around 1797—on the Allegheny.

The trouble is not simply the reduction of his time on the Allegheny to just "one notable area" among many. While it is certainly true that, once arrived in Ohio, his efforts "aimed at providing settlers with a sustainable source of food," there is no evidence that this is what he was doing on the Allegheny. The accounts we have of that period, collected by Judge Wetmore from settlers who remembered Chapman several decades later, say only that he appeared to be attempting to establish land claims—albeit unsuccessfully—and that he planted a handful of stands of apple trees, perhaps as orchards, perhaps as nurseries. There is no mention, in this period, of his selling or otherwise providing his trees to other settlers.

That would, in fact, have been hard to do, as there were only a handful of settlers in this region of steep hills, which remained relatively unpopulated until the discovery of oil there in the middle 19th century. GPT-4 is conflating Chapman's later work with his earliest time on the frontier, before he ever became Johnny Appleseed.

I then decided to probe GPT-4's geographical knowledge further. The internet is full of both facts and fiction about Chapman, so I asked instead about a well-known historical event:

**My Prompt:** Describe the route and means of transportation by which the Ohio Company settlers traveled from New Ipswich Massachusetts to Marietta Ohio.

**GPT-4:** *Here's a description of the typical route and means of transportation used during that time:*

1. *Departure from New Ipswich: The journey began with the settlers leaving New Ipswich, Massachusetts, which was their initial point of departure. They likely traveled by foot or horse-drawn wagons to reach larger towns or cities with better transportation infrastructure.*
2. *Water Transportation: Once the settlers reached the Connecticut River, they would typically board flat-bottomed boats or rafts known as "Kentucky flatboats." These boats were specifically designed for river travel and were common during that period. They provided the means to navigate the river systems and transport people and goods.*
3. *Connecticut River: The Connecticut River served as a major waterway for the settlers. They traveled down the river, passing through the states of Massachusetts, Connecticut, and eventually reaching the border of New Hampshire and Vermont. The river acted as a vital transportation route, allowing for a relatively faster and more efficient journey compared to overland travel.*
4. *Portages: Along the Connecticut River, there were sections where the settlers had to make portages, which involved temporarily leaving the*

*boats and carrying or dragging them overland to bypass obstacles such as waterfalls or rapids. These portages were physically demanding and required teamwork and coordination.*

5. *Mohawk River and Canals: After reaching the northern border of Massachusetts, the settlers would disembark from their boats and travel overland to the Mohawk River in New York. From there, they navigated the Mohawk River westward, possibly utilizing smaller boats or canoes, as well as employing portages as needed. The Mohawk River provided a connection to the Great Lakes region.*
6. *Mohawk-Hudson Canal: To bypass the unnavigable sections of the Mohawk River, the settlers would likely use the Mohawk-Hudson Canal, which was a canal system constructed to improve transportation. They would transfer their goods and belongings onto canal boats, which were pulled by horses along the canal's towpath.*
7. *Overland Travel: Upon reaching the western end of the Mohawk-Hudson Canal in Schenectady, the settlers continued their journey overland. They traveled through western New York, passing through towns such as Utica and Syracuse, likely using wagons, carts, or horses to transport their belongings.*
8. *Crossing the Appalachian Mountains: The settlers faced a significant challenge when crossing the Appalachian Mountains. They would have traversed rugged terrain, making their way through valleys, forests, and steep slopes. The journey was strenuous, and the settlers relied on their physical strength and determination to navigate the difficult mountainous terrain.*
9. *Arrival in Marietta: After crossing the Appalachian Mountains, the settlers would have finally reached their destination of Marietta, Ohio. Marietta was the first permanent settlement of the Ohio Company in the Northwest Territory, and it was established in 1788.*

Anyone familiar with the geography of the northeastern United States can see several blunders here; those familiar with pioneering in the late 18th century will see additional problems.

To begin with, GPT-4 seems unaware that oxen, not horses, were the favored means for hauling wagons west in this period. They were less expensive to buy, less expensive to feed, and less injury-prone than horses, and once arrived they could be turned into beef for sustenance.

Then there is the bizarre claim that they headed for "larger towns or cities with better transportation infrastructure," when in fact they were *leaving* New England, with its relatively good road network, for a frontier region with few and poorly-maintained roads.

We next find Kentucky flatboats on the Connecticut River, when in fact the Ohio Company pioneers left Massachusetts in wagons in midwinter, allowing them to cross most river obstacles on the ice. And the description

of their fictional Connecticut River trip—south through Massachusetts to Connecticut, but then to New Hampshire and Vermont, both *north* of Massachusetts—is a geographic impossibility. But wait—at the northern border of Massachusetts, our intrepid travelers head not north, but west toward upstate New York and the Mohawk River (presumably without their Kentucky flatboats)!

Adding to the tangled geography is an unawareness of the relative advantages of possible routes west. In 1788, there was no canal crossing New York to the west: that wouldn't come for another four decades, and when it did, it was called the Erie Canal. The "Mohawk-Hudson" referred to is the Mohawk-Hudson Canal *Bikeway*, a modern state park and trail utilizing the old Erie Canal tow path.

So the Ohio Company would have to have crossed New York on foot. But in this period, western New York was still Seneca territory, with no wagon roads and no communities where provisions could be refreshed. In addition, there was unrest on that frontier. In reality, The Ohio Company pioneers went south as far as Hartford, Connecticut, then headed west to cross the upper Hudson and Delaware rivers into Pennsylvania, using the well-traveled roads that "Yankee" Connecticut claimants to lands in Pennsylvania [see last issue] had used for decades. They then swung southwest toward Harrisburg to pick up the Braddock-Forbes wagon road into the Appalachians.

They had no intention of struggling across the many Appalachian ridges. Once they reached the Youghiogheny River, which flows north into the Monongahela and then to the Ohio River, they took their wagons apart and reassembled them as a large boat (christened the *Mayflower*) and floated the rest of the way, north past Pittsburgh, then south past Beaver Creek, to the town they would name Marietta.

Perhaps, I thought, it would be safer to use GPT-4 as a tool to locate resources. What, I wondered, did it know of the Johnny Appleseed literature?

**My Prompt:** Please list six reliable sources for a biography of Johnny Appleseed

**GPT-4:** Here are six reliable sources you can consult for a biography of Johnny Appleseed (John Chapman):

1. *"Johnny Appleseed: The Man, the Myth, the American Story"* by Howard Means: This book provides a comprehensive biography of Johnny Appleseed, exploring his life, adventures, and the historical context of his time. It offers a well-researched and engaging narrative.
2. *"Johnny Appleseed: A Pioneer Hero"* by Mabel Leigh Hunt: Written for young readers, this biography provides an accessible account of Johnny Appleseed's life and contributions. It includes illustrations and primary source material, making it suitable for both children and adults seeking an introductory biography.

3. *"The Johnny Appleseed Book"* by Reeve Lindbergh: Authored by the daughter of aviator Charles Lindbergh, this book offers an engaging retelling of Johnny Appleseed's story, drawing from historical records and folklore. It delves into his character and legacy, presenting a balanced perspective.
4. *"Johnny Appleseed: The Man behind the Myth"* by Robert Price: This biography aims to separate fact from fiction and examine the true story of Johnny Appleseed. It provides insights into his upbringing, religious beliefs, and environmental impact, while dispelling common myths associated with him.
5. *"Johnny Appleseed and the American Orchard: A Cultural History"* by William Kerrigan: This scholarly work explores Johnny Appleseed's role in American cultural history and examines the broader significance of apple orchards in early America. It offers an in-depth analysis of his impact on frontier life and agricultural practices.
6. *"The Botany of Desire: A Plant's-Eye View of the World"* by Michael Pollan: While not solely focused on Johnny Appleseed, this book includes a chapter dedicated to his story. It delves into the historical context of apple cultivation in America and sheds light on Johnny Appleseed's motivations and impact on the apple industry.

*These sources should provide you with a variety of perspectives and details about Johnny Appleseed's life, allowing you to gain a comprehensive understanding of his fascinating story.*

These are all real sources—not a guarantee with GPT-4, as [one lawyer recently found](#) to his embarrassment. But they are not all the "reliable sources" I requested. The Lindbergh and Hunt books are for children, and while each gets the general outline of Chapman's life correctly, neither cites sources and both mix fact and legend without differentiating.

On the other hand, the list does include the two major scholarly biographies, by Price and Kerrigan, though it gets the Price title (*Johnny Appleseed: Man & Myth*) wrong. The Means biography, which heads the list, leans heavily on Price, but veers off too often into unsupported conjecture to be considered a fully reliable source. And while the Pollan essay in *Botany of Desire* is well-researched, it is not so much about Chapman as about apple cultivation, in the period before apples became a commercial commodity. There are many alternative essays that better meet the definition of reliable *biographical* source.

I am thinking, for instance, of Florence Wheeler's 1939 *Ohio History Journal* article establishing Chapman's genealogy; Skarbek's 2008 essay in the *Journal of Austrian Economics* on the strategy of Chapman's apple business; and the many first-hand accounts of Chapman by people who actually knew him (Rice, Humrickhouse, Curtis, Glines, Coffinbury) or interviewed those who

knew him (M'Gaw, Baughman, Wetmore, Howe). What GPT-4 gave me seems to be a list of the works on Chapman that are mentioned most often on the internet: in other words, popular rather than reliable sources.

What we glean from this limited experiment is that GPT-4 is an unreliable source for doing historical research. More than inaccurate or incomplete, its responses can be complete fiction.

However, AI has other applications than scouring the internet for information. At the Johnny Appleseed Education Center & Museum, we work on audiovisual presentations about Chapman and frontier history, both for our visitors and as curriculum material for schools. The work of finding, editing and securing rights to visual images is tedious and time-consuming, and we don't have artists on our staff. Can AI be of assistance?

So we turn to [Stable Diffusion](#), which allows you to describe the image you would like, producing it in any style you indicate. I want some simple images of Chapman:

**My Prompt 1:** Johnny Appleseed, in the style of William S. Mount.

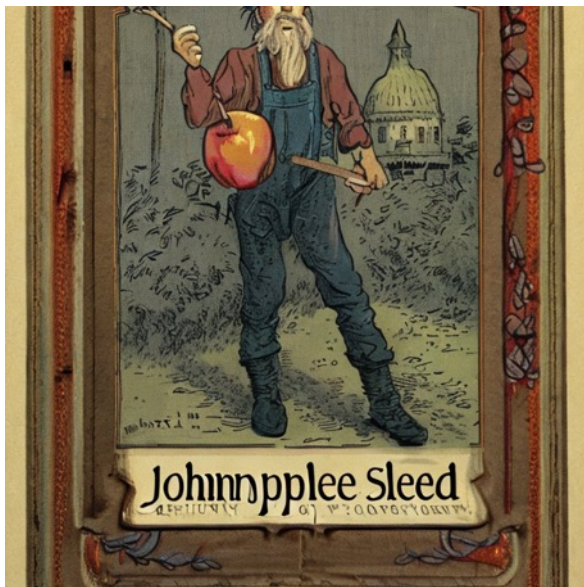


Image 1: Stable Diffusion Response to Prompt 1

This image, the best of the four Stable Diffusion offered, is oddly cropped so Chapman's face is cut off. He appears to be inserting a rod into his abdomen, while holding an impossibly large apple by an improbably long stem. In the background lurks a capitol building—but not Ohio's, which has no dome. And the banner text badly misspells the name provided in the prompt. Moreover, this is not at all in the style of William Mount, whose paintings of 19th-century rural life I had wanted to capture (see Image 2). There are dozens of Mount images online, but somehow this AI engine is oblivious to them.



Image 2. William S Mount, c. 1850 *Cider Making*, from Metropolitan Museum of Art, New York

Perhaps, I thought, a bit more descriptive detail and less style suggestion would help:

**My Prompt 2:** Johnny Appleseed wearing a coffee sack

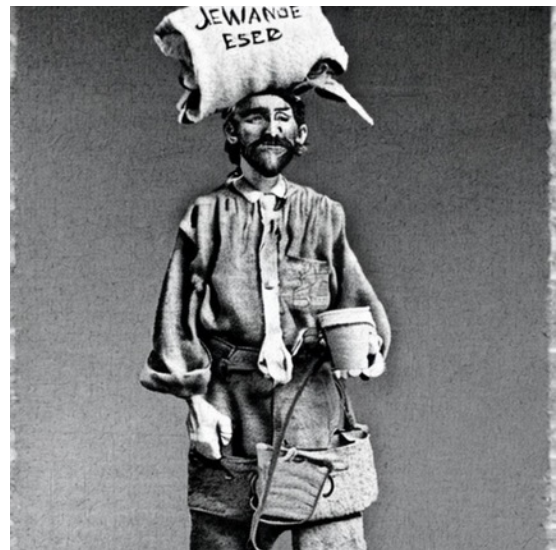


Image 3: Stable Diffusion response to Prompt 2

The response has inexplicably gone from color to black and white. The shirt, while it could pass for burlap, is not a coffee sack (which would provide no sleeves). And again, mysterious extras: a sack on his head, with nonsense lettering; a flowerpot in his left hand. Not at all what I thought I had asked for. Perhaps it would be better to provide even more detail, leaving the reference to Johnny Appleseed (who often appears online as a cartoon) aside:

**My Prompt 3:** Full-length portrait of a barefoot man wearing a coffee sack as a tunic

We are back to color, though the cropping is poor. Our man appears to be balancing a pair of spectacles on the back of his raised left hand, and while his right side appears to be in a tunic, his left side seems to be draped in a toga—and neither side resembles a coffee sack. All current AI programs for image creation seem to have trouble with human extremities: in this case, the oddly elongated feet.



Image 4. Stable Diffusion response to Prompt 3

Perhaps even more detail would help us arrive at an acceptable image of Chapman?

**My Prompt 4:** A bearded, barefoot Ohio pioneer man wearing a coffee-sack tunic, and torn trousers:



Image 5. Stable Diffusion response to Prompt 4.

I suppose I should have specified "color." Stable Diffusion has here tried to produce a photographic effect, which would be jarring in our presentations, so the prompt would need to say something about style. Although I specified bare feet, the feet are cropped out, and the hands (especially his right hand) are deformed. The pants are not torn, the linen-like shirt is not a coffee sack, and it is not clear what the odd kilt is doing there. Still, this is much closer—and much less bizarre—than previous results.

Each image took Stable Diffusion about 45 seconds to produce. To be fair, it produced four alternative images in that time: I have simply selected the "best" of each run for this article. What it did not seem able to do was to

produce an image I could use in a presentation. Perhaps I would have fared better with different types of images: landscapes, for example. My best result came with the following:

**Prompt 5:** An old man, dressed in rags, walking away through a hardwood forest, in the style of William Sidney Mount



Image 6. Stable Diffusion response to Prompt 5.

Suddenly the style and palette suggest Mount's work, though a torn coat is hardly a man "dressed in rags." I left out "barefoot" so I cannot object to the boots, but see Image 7 for a closer look at this man's left hand and what is in it:

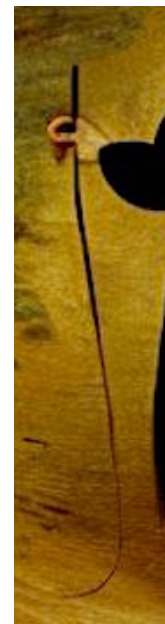


Image 7. Close-up of Image 6, showing hand & walking stick

The hand, we see, is rendered backwards. And the "staff" he holds in that hand tapers and curves like a whip.



Note that I did not even ask for a walking stick, though "old man" likely suggested this addition. But the program has no sense of what such an item is actually for, and so fabricates this impossible staff.

As I indicated at the beginning, these AI systems begin all over again each time they are prompted. If you try either one using my prompts, you will get different results than mine. But it seems that AI is not yet ready to be of much assistance to us at the Johnny Appleseed Education Center & Museum.



## **Teachers Corner**

*by Judith Maule*

### **Trees from Seeds**

In this, my last article for the Teachers Corner section of the *Apple Core*, I wanted to present the basic methods of planting and caring for an apple tree. But as the story really starts before digging a hole and putting in the tree, I thought we would look at something you might enjoy first: growing your own apple tree from a seed indoors, for next year's planting in the garden next March or April.

I've included directions for growing an avocado seed as well, because an avocado seed is large, and visible in a glass jar, so you'll be able to watch the growing process above ground.

Let's begin this summer by planting some seeds. You and your family may already have a vegetable garden. If so, make sure you get in on the planting. As a child I had an Auntie who loved to garden. She and I would plant a small garden early in the spring just to watch it grow—but that's not all. I learned what a thrill it is to care for small plants: yes, to watch them grow, but to have something of my own to care for, to protect, and observe.



*Figure 1. There are multiple rewards to family gardening.*

When the plants were big enough, I'd have a great sense of accomplishment as we brought our harvest to the table. The taste of freshly picked vegetables and fruits is the best!

I encourage you to find some seeds and plant them in the ground. The directions for planting the seeds are usually written on the back of the package. Follow the directions and with Ohio's wonderful soil and sunny summers you'll be a successful gardener before you know it. Remember to keep your plants well watered!

Now, let's look at planting some seeds inside as well. You'll need to ask the shopper in the family to buy an avocado, so you can get an avocado seed. The apple seeds you can get yourself by eating an apple and saving the seeds. I've chosen an avocado seed and an apple seed because you can watch an avocado growing. You can see the seed split and root begin to descend into the glass of water. It's exciting, visible and exactly what's happening to the apple seed, but the apple seed is very tiny and the process is all happening underground.

**To start the avocado tree**, you'll need an avocado seed, a glass jar that will fit the bottom of your seed, and three toothpicks (preferably the round kind, which are sturdier). The seed is wider and flatter at one end: this is where the roots will emerge. You push the toothpicks into the seed one at a time, about halfway from the top of the seed, so they are evenly spaced around it. Check your toothpicks to make sure the avocado seed (wider end down) will sit in your glass and be supported by the rim. If it sags too much, readjust the toothpicks until the avocado sits in the glass firmly supported, and fill the glass with water (see *Figure 2*). If you live in a town or city that chlorinates its water, you will do better to use bottled spring water.



*Figure 2. An avocado seed sprouting in a plastic cup.*

Next, find a nice light-filled window where you can set your seed. If it is on a wooden surface (like a window sill), you should place your glass container on a dish or saucer so water spills won't spoil the wood finish.

Plants grow by pulling water up through their roots: You will need to replenish the water level to keep it near the level of the toothpicks. Change the water every week or so to keep fresh nutrient rich water available for the

developing plant. It will probably take about three weeks for the seed to split and the new roots to begin to grow down into the water. Eventually a stem will emerge from the top, too. Be careful not to split the seed in half. Both sides of the seed are needed to support the new growth.

**To start the apple tree** you will need to collect a few seeds. One apple is plenty: each one has anywhere from 5 to 10 seeds inside. You'll need a few small pots (see Figure 3), one for each future tree. In addition, you will need potting soil (available at garden centers or a nursery); a water-tight plastic tray, large enough to fit the set of pots; a piece of newspaper to work on; and a small flat dish.



*Figure 3. Plastic seed pots (left and rear) or biodegradable pots (center) can be used, or even old yogurt containers (right) so long as you make holes in the bottom.*

First, fill the bottom of the small dish with water, lay your apple seeds in the water and leave them overnight. This helps get them ready to sprout.

The next day, place your pots on the newspaper, and fill them with potting soil, pressing down gently so the soil is not too loose. Then push your pointer finger about an inch into the middle of the soil, drop one seed into the hole, and cover it with the potting soil. Each pot needs the same treatment—make a hole in the soil mixture, drop in the seed, and cover.

Then place your pots into the plastic tray and pour water into the tray (not the pots!) about a half inch deep. The soil in the pots will draw the water up, and the water will attract the growing roots down, helping to build a strong root system. You will need to water regularly to keep the water level in the tray up, but don't over-water.

Plant several pots to avoid disappointment. Most seeds will germinate and grow, but occasionally some circumstance—not enough or too much water, too much or too little sun, too much or too little warmth, or just an obstinate seed—will prevent one from completing the process. If you have multiple pots each with a seed, you have multiple chances to grow an apple tree.



*Figure 4. English orchardist David Marks took this picture of a Fiesta apple tree at one year's growth.*

If the place you keep your seed pots is warm and sunny enough, some of your seedling trees may need to move to larger pots before spring. If so, look for a one-quart pot or larger pot, fill it part way with more potting soil, then remove your seedling, roots, soil and all from its small pot to the larger one, filling any gaps with more soil (see Figure 5). In the spring, healthy seedlings can be moved outdoors.



*Figure 5. Apple seedlings transplanted: Several can share a large container. The layer of gravel at the top prevents weed seeds from finding a home.*

**Here's to happy growing!**

## Apple of the Month

### Ashmead's Kernel

Our apple this issue is Ashmead's Kernel, one of the many *russet* apples. Apples come in many colors, from deep purplish black (as in the Oxford Black), to bright red, from yellow to deep green. But the russets are not properly brown apples; and many red, green or golden apples display some russetting.

Russetting is not a skin color, but a skin condition. Its cause is the microscopic rupturing of the apple's skin, caused when it expands less quickly than the flesh within, or when irritated by constant friction. The fruit repairs the tears with a brownish, corky substance (similar to a scab or scar), which may cover only a part of the fruit (generally the region closest to the stem), or the entire apple.

Any variety of apple can show some russetting around the stem, if crowding or excessive wind causes friction between skin and stem. But several varieties, including Ashmead's Kernel, are russeted "by nature." These days, we tend not to see these varieties in the market, where bright color is most prized. But I can still recall my delight, years ago on a trip to England's Lake District, at biting into my first russet apple. That one bite changed my conception of what an apple can be.



Figure 1. Ashmeads on a bough.

Was my first russet an Ashmead's Kernel (or Ashmead, for short)? I cannot say, but it might have been. The bloggers on the UK's [Orange Pippin](#) website describe it this way:

*An old nondescript green russeted apple, originating in the 1700s. The appearance is, let's be honest, not especially attractive. Ashmead's Kernel is lumpy, mis-shapen, and rather small. The underlying bright green skin is entirely covered in russet. Russet can be very appealing—think of the dull golden glow of Egremont Russet for example—but somehow on Ashmead's Kernel it just looks plain dull.*

*Yet appearances can be deceiving. Ashmead's Kernel has remained popular for well over two centuries, and with good reason: it has a distinctive flavour which is quite different from most other varieties. Tasters rarely agree on exactly what the*

*elusive flavour reminds them of, but pear drops is probably close.*

I'd substitute "heavenly" for "pear-drop," but you get the idea.

This is an apple that not only ages well, but really requires aging. The [Cummins Nursery](#) of Ithaca NY, in the heart of that state's apple district, advises buyers:

*While the acidity of the fresh-picked fruit might not agree with some tastes, Ashmeads mellows with age, and an October harvest is best stored for eating around Christmas, when notes of pear, spice, and orange blossom will emerge. This extraordinary and versatile apple has recently enjoyed renewed popularity among apple aficionados, and is one of our best sellers.*

As with the Calville Blancs we looked at last issue, this apple is a keeper: that October harvest, properly stored in a cool dark environment, will still be delicious as late as March.

The Ashmead is not, however, a commercial apple. While "it has moderate disease resistance and blooms late enough to avoid most frosts" (Cummins again), it can be an irregular producer, and is subject to both bitter pit and fire blight. The Canadian apple encyclopedia [Pomiferous](#) notes that

*in 2008, nuclear DNA content tests carried out at the Plant Cytometry Service in The Netherlands confirmed long-standing suspicions that this variety is triploid, providing no viable pollen to itself and other apple trees.*

As with the many other triploid varieties, Ashmeads require planting near two diploid varieties that flower at roughly the same time, in order to pollinate properly (Golden Delicious, Cortlands and Jonathans are among the many favored varieties for this).

You can still find Ashmeads at some heirloom orchards (ours in New Hampshire come from across the Connecticut River at [Scotts Farm](#) in Vermont), and because of its excellent and unusual flavor it has become popular with gardeners, as well as with cider makers. In addition to being a fine eating and cider apple, it cooks well and makes a tangy applesauce.

The apple has a somewhat unusual history. Other than crab apples, there were no American apples before the arrival of Europeans in the 15th and 16th centuries. Some of those early colonists brought European apple trees with them, but few of these did well in the more challenging North American continental climate. The Ashmead is an exception to that rule: it is an English apple that took to the climate of the northeastern US quite comfortably. It was a relatively late arrival, first appearing on these shores around 1850. As a result, it goes unmentioned in the early inventories of American fruits by Coxe in 1817 and A. J. Downing in 1845, but finds a brief mention in

Charles Downing's 1881 expanded edition of his father's work:

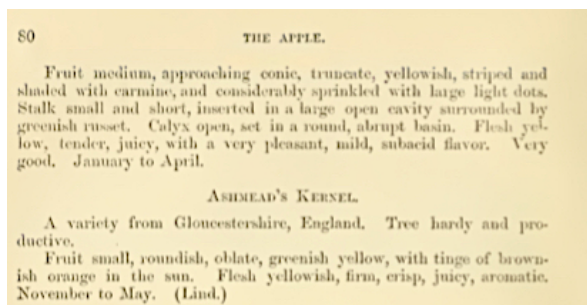


Figure 2. Ashmead's Kernel in A. J. & C. Downing (1881)

As Downing noted, the tree originated in Gloucestershire. Unusually, we can be very specific: it originated on the grounds of Ashmeade House in the city of Gloucester, some time in the first half of the 18th century. The house acquired the name from its occupant, a lawyer and Gloucester city clerk named William Ashmead, and was torn down several years back after serving as the office of the gas company there. The "kernel" in the name is like the more common "pippin": it refers to a variety that originated from seed. A fuller account of how the origin of this apple was worked out can be found on the website of the [Gloucestershire Orchard Group](#).



Figure 3. Ashmead's Kernel in blossom

I cannot resist closing this description with one more païen to the wondrous flavor of Ashmead's Kernel, this one from the British pomologist and food author Morton Shand, as quoted by the Massachusetts apple blogger at [Adam's Apple](#):

*What an apple, what suavity of aroma. Its initial Madeira-like mellowness of flavour overlies a deeper honeyed nuttiness, crisply sweet not sugar sweet, but the succulence of a well devilled marrow bone. Surely no apple of greater distinction or more perfect balance can ever have been raised anywhere on earth.*

Truly, the Ashmead's Kernel is an apple worth seeking out. Search for heirloom orchards near you, to see if they grow them. Ideal harvest time will be in October, early or late depending on your growing zone.

## Apple Recipe for June:

### Schnitz un Knepp

Today our markets are full of apples year-round, but it wasn't always so. Even in the postwar years of the 1950s, late winter and spring offered few choices of apples in the produce aisle. In John Chapman's time the dearth was even deeper (and produce aisles didn't exist!).

Even the best "keeper" apples have only so many months before they soften to brown mush. To keep the product of their trees in Chapman's time, farmers had two choices: squeeze the fruit for its juice, which would inevitably turn in a few weeks to an alcoholic cider; or slice the fruit and dry the slices for use in baking.

The frugal Amish and Mennonite settlers, who established communities across Ohio in the 19th century, generally took the latter course, and the curly off-white chips that resulted they called *Schnitz* (sometimes given as *Snitz*), or "cuttings." These could be used as is in baked goods to add flavor and sweetness, or reconstituted with hot water to make intensely flavored apple pies and tarts.

This month's recipe showcases another use for *Schnitz*, as a sort of relish in a meat-based dinner entree known as *Schnitz un Knepp*, or "Cuttings and Buttons." The buttons here are dumplings, cooked with the Schnitz to pick up some of their flavor. While the centerpiece of the dish today is the ham, it's worth remembering that this is a dish for spring, a time of lean pickings on a frontier farm: the *Schnitz un Knepp* were meant to stretch what little meat was left into an appetizing dish. Modern vegetarians might want to vary this recipe by using sweet potatoes instead of the ham.



A Platter of Schnitz un Knepp with Ham

## INGREDIENTS

- One 3 lb. ham
- 4 cups Schnitz (dried apples)
- 2 cups flour
- 1 egg
- 1/4 tsp pepper
- 4 tsp baking powder
- 1 Tbsp milk
- 1 tsp salt
- 3 Tbsp melted butter or margarine

## DIRECTIONS

1. Boil the ham for 2 hours
2. Soak the Schnitz in water while ham boils
3. At 2 hours, add the Schnitz with its water to the pot with the ham, and boil another hour
4. Mix all the other ingredients in a bowl, stirring just long enough to combine
5. Drop dough by spoonfuls onto boiling liquid to make the Knepps
6. Cover the pot and boil another 15 minutes

To serve, slice the ham thickly, place the Knepps alongside, and spoon the Schnitz and some of the pot liquid over both. For an authentic touch, serve with lightly steamed dandelion greens, dressed with bacon drippings and cider vinegar.



### About the Apple Core

*The Apple Core* is the official newsletter of the Johnny Appleseed Society, published bimonthly in February, April, June, August, October, and December, to members of the Johnny Appleseed Society.

### About the Johnny Appleseed Society

The *Johnny Appleseed Society* is a nonprofit educational organization which seeks "to preserve and promote the legacy of John 'Johnny Appleseed' Chapman (1774 - 1845) through both educational activities, and the wide dissemination of educational materials that relate John Chapman's work and values to the world in which we live."

Membership is open to all who share our purpose. Annual dues are \$25 for voting members, \$10 for student members, and \$250 for Life membership. For more information, visit:

[www.appleseedsociety.net](http://www.appleseedsociety.net)