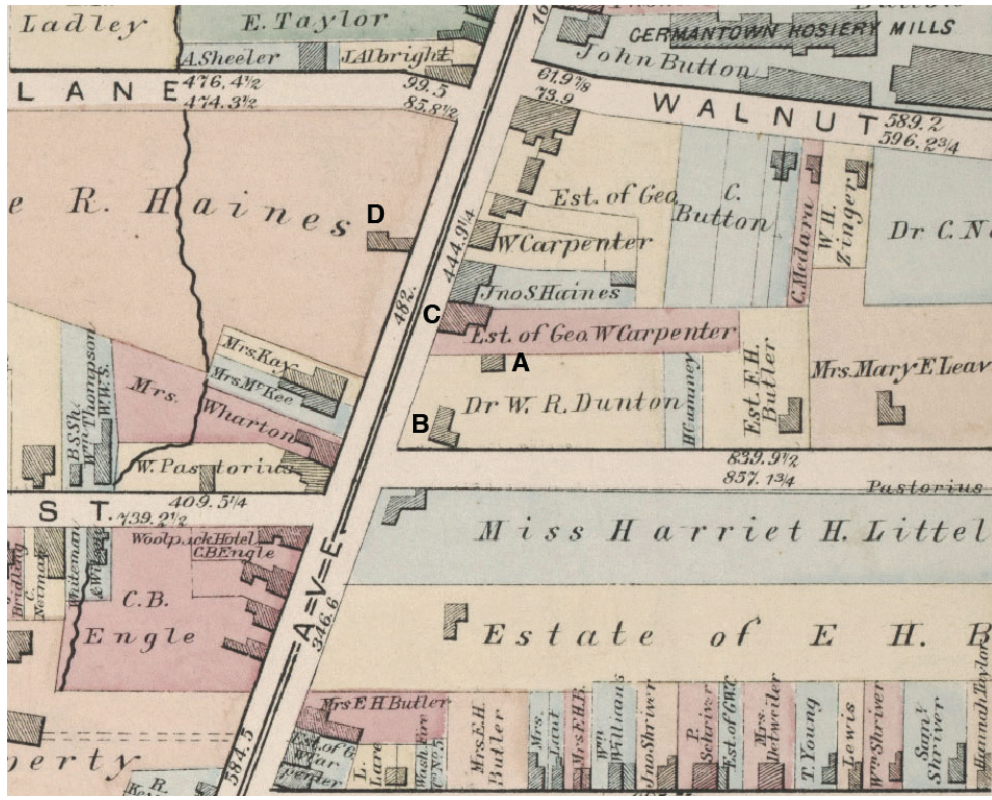
The Art of Gardening in a Pennsylvania Woods

THE GARDEN OF FRANCIS D. PASTORIUS

BY MIRANDA E. MOTE

Conjectural site plan of Francis D. Pastorius and Enneke Klostermanns' town and side lots, drawn at 1"=200'-0". Shown are (C) house and hot beds for winter crops, (D) garden, (E) orchard, (F) outbuilding and yard for animals, (G) woods, and (H) vineyard and apiary. All of these parts of his garden would have been enclosed within fences or hedges. Plan and leaf prints created by Miranda Mote.

SEVERAL CITY BLOCKS separate what is today 6019 Germantown Avenue and the green space of the Awbury Arboretum. At one point, however, these nearly 40 acres in Germantown were home to the late 17th- and early 18th-century estate of scholar and lawyer Francis D. Pastorius, whose elaborate and carefully tended garden included more than 200 types of plants; different beds for medicinal herbs, vegetables, and ornamental flowers; a vineyard and an orchard; woods and fields; and beehives. The house and much of the surrounding garden have been gone for more than a century, but we can reconstruct Pastorius' beloved garden through his garden journal, poems, letters, and nature prints.



This map is from Hopkins' *Atlas of Germantown* (1871) and shows **A:** the location of Francis D. Pastorius and Ennecke Klostermanns' house, built after 1689 and demolished in 1872; **B:** the original site of Daniel Pastorius' (Francis' grandson) house, built ca. 1796 (now 25 High Street); **C:** Daniel Pastorius' Tavern, built ca. 1748; and **D:** Wyck House, originally built by Swiss-German Hans Milan ca. 1690.

Francis Daniel Pastorius, head-and-shoulders portrait, left profile, bas-relief, founder of Germantown, PA, ca. 1897. Photograph from the Library of Congress. https://www.loc.gov/item/89709903/.

FOUNDER OF GERMANTOWN

Early settler Francis Daniel Pastorius (1651–1719) emigrated from Frankfurt, Germany, to found Germantown, Pennsylvania, in 1683 with a group of Dutch and German colonists. In addition to serving as a lawyer, judge, and politician, Pastorius taught young children in Philadelphia and Germantown's first schools for many years and co-authored the 1688 Germantown protest against slavery, "we are against the traffik of men-body." He was a scholar of unusual tenacity and well-read in many subjects including theology, natural sciences, history, politics and law, poetry and literature, and was fluent in seven languages: German, Dutch, Latin, Greek, Italian, French, and English. He attended several universities in Europe and graduated from the University of Altdorf in 1675 (20 km south of Nürnberg, Germany). Altdorf was a small university, but it had the second-largest botanical garden in continental Europe. Altdorf's garden was a place of scientific study and a

"Pastorius House," date unknown. Negative, Glass-plate. Image 20126284, Germantown Historical Society. This photograph is also found in the GHS Scrapbook Collection, "Pictorial Germantown Road and the Vicinity & Some of its Inhabitants. Compiled by George Clarence Johnson. Volume I. East Side" dated between 1851 and 1872. It shows the Daniel Pastorius house on the right at the corner of High Street and Germantown Ave. The house to the far left may be the original Francis D. Pastorius house built ca. 1689 as its location is similar to that in the Hopkins' *Atlas of Germantown*.

grand, beautiful space with poetry inscribed on its main gate and path names like "Philosophical Way" and "Poet's Grove." Its lasting impression is apparent in Pastorius' description of this garden in his *Beehive* notebook written some 20 years later.

After graduating from Altdorf, he practiced law in Windsheim and Frankfurt and was profoundly influenced by a radical religious movement called Pietism. The Pietists advocated for radical reform of the Lutheran church and rejected any institutionalization of religion because, in their minds, Christian faith was a personal relationship with God. This personal relationship with God was realized through piety, living a life of charity and love towards all people, and a mystical relationship with nature. Pastorius believed the study of plants and gardening was pious work and his plants, as the creation of God, were sacred.

Pastorius recorded observations about the natural world and wrote poems about his garden, plants, and bees in letters, journals, and hand-made books for his family and neighbors. Several of these manuscripts survive and have been preserved for study at the Historical Society of Pennsylvania, The German Society of Pennsylvania, and the Kislak Center at the University of Pennsylvania. Nothing of his garden or house survives in Germantown, as the house that he and his wife (Ennecke Klostermanns) built around 1689 was demolished in 1872 and, over time, the land where he built his garden was subdivided and sold out of the family. The last record of their house's footprint can be found in an atlas of Philadelphia County

published in 1871. Their house was either stone or log-framed and was set back about 40 feet from the street with a fenced garden in front, outbuildings for animals, and a fenced garden, orchard, and vineyard behind the house. A detailed reconstruction of his garden must rely almost entirely on his elaborate accounts of his garden and plants that he wrote in his notebooks.

PASTORIUS' GARDEN (CA. 1683–1719)

A 1714 survey documents the extent of Pastorius' 39.5-acre Germantown lot that was situated on what is now 6019 Germantown Avenue and extended northwest almost 235 feet and northeast 8,068 feet, which is now part of the Awbury Arboretum. (A record of this survey can be found at The Germantown Historical Society.) Most of the garden was fenced behind the house. Beyond the garden was densely wooded land. He described his large garden as having many distinct parts: a medicinal herb garden, a kitchen garden, an ornamental garden, an orchard, a vineyard, fields, and woods, although he did inter-plant turnips in his orchard and herbs in his rose beds. In addition to fertilizing with manure and marl, he often inter-planted to improve a plant's scent, color, or fecundity.

In his medicinal herb garden, he grew most of the 159 herbs mentioned in his medicinal notebook. In his garden journal, he cataloged a list of over 220 culinary and ornamental vegetables, herbs, roses, perennial and annual flowers, shrubs, and trees that he cultivated. Additionally, in his garden journal, he recorded details about his beehives and the plants in his garden favored by the bees. Honeybees (*Apis mellifera*) had only recently been introduced to North America, in 1620 and 1622, by English settlers in Massachusetts and Virginia. Pastorius' notes about beekeeping are one of the earliest first-hand accounts of apiculture in Pennsylvania.

In addition to his lists of plants, Pastorius described parts of his garden and its arrangement in his *Beehive* (a large encyclopedic notebook) and *Garden Recreations* poems. From these and his garden journal, we know that his garden and orchard were fenced, that he had at least two or three apiaries and outbuildings to store seeds and tools. We know that his plants were organized into different kinds of garden beds, including a nursery bed as well as beds for ornamental flowers like tulips, daffodils, a kind of exotic tuberose, and several kinds of roses. He also kept garden beds of medicinal herbs and vegetables, with many kinds of lettuce, asparagus, and root vegetables.

Historical reconstruction of Pastorius' plant printing methods. Top, Mulberry (*Morus nigra*); Center, Wormwood (*Artemisia absinthium*); Bottom, Rose (*Rosa*). Printed by the author at the Common Press, University of Pennsylvania, with plants from the historic collection of plants at Bartram's Garden. Pastorius grew these same species in his own garden.

A Selection of Medicinal Plants Listed in Pastorius' *Artzney und Kunst* (*Physic and Art*), circa 1686

The notebook *Artzney und Kunst* lists 159 plants by their German common names. Where possible, I have identified the plant by other common names in brackets as well as its binomial name. The common names are spelled as Pastorius wrote them. Identification of these plants was advised by Meredith Hacking, Chantel White, David Hewitt, and Sonja Dümpelmann. Below are some common and unusual plants from this list.

CITIFONOR
[Citrus fruit]
Citrus

CÚCÚMERN
[die Gurke, cucumbers]
Cucumis

CŸPRUßKRAÚT
[Zypresen Kraut, Lavender Cotton]
Santolina chamaecyparissus

ERDBEER
[Strawberry]
Fragaria

FUNF FINGER D GRASS & FÜNFF FINGERKRAUT
[Kriechendes Fingerkraut, Creeping Cinquefoil]
Potentilla reptans

HOLLÚNDER
[Elderberry]
Sambucus nigra or canadensis

HOPFEN
[Hops]
Humulus lupulus

MAYZ OR INDIAN CORN
Zea mays

MERZEN VEILCHEN
[type of Violet]
Viola

NEßELN
[Nettle]
Urtica dioica

POMERANTZEN
[Bitter Orange]
Citrus aurantium

QUITTEN
[Quince]
Cydonia oblonga

ROIß
[Reis, Wild Rice]
Zizania aquatica

ROSEN
[Rose]
Rosa

SEVENBAÚM
[Savin Juniper]
Juniperus sabina

SPARGEL
[Asparagus]
Asparagus officinalis

TABAC
[Tobacco]
Nicotiana

WACHOLDER BEER
[Juniper berry]
Juniperus

WEISSE KÜB[ILL]
[Hellebore]
Helleborus

WEIßE LILIEN
[White Lily]
Lilium candidum

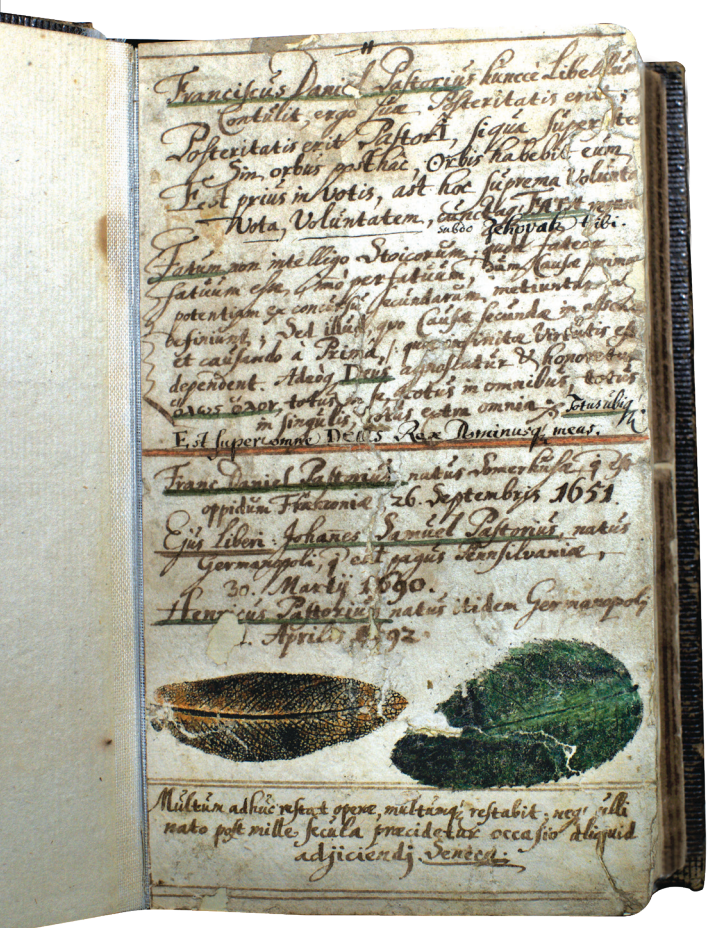
WERMÜTH
[Wormwood]
Artemisia absinthium

WILDEN SAFFRAN
[Saffron]
Crocus

Pastorius described benches in his garden for sitting and napping and a well-placed sundial with a poem inscribed on it. Some of his plants were exotic, which required that he remove them from his garden, re-pot them, and store them inside his house throughout the winter. He described how and when he did all of this work in his garden journal. But he also read, wrote, and napped in his garden. For him, the garden was a place of work and pleasure.

PASTORIUS' NATURE PRINTS

Nature prints are a particular genre of botanical illustration that has been practiced since antiquity. Medieval and early modern physicians and natural scientists made prints of plants in their notebooks and herbals in addition to collecting and pressing plants in herbariums so that they could accurately record the plants' form and structure, identify species, and share their observations with other scientists. "Nature printing" as a scientific practice was explicitly connected with the development of modern botany as an independent discipline and early modern medicine in Europe. In the Renaissance, nature printing was also practiced as an art form and a recreational activity.



Artzney und Kunst title page, decorated with two painted nature prints by Pastorius, dated 1696. Historical Society of Pennsylvania, collection 0475. Left, sage leaf, and right, leaf of woody plant from the *Prunus* genus.

Even though only a few of Pastorius' plant prints survive, I know from his letters that he printed plants often and generously shared his art with friends and family. Surviving examples of Pastorius' nature prints can be found in his *Letter Book*, *Artzney und Kunst* (*Physic and Art*), *Ship-mate-ship*, on the cover of his own Pennsylvania law book, and inside a book that he owned that has survived at The Library Company of Philadelphia.

I have studied all of his extant nature prints and have concluded that his methods were skillful but simple. He used inks and paints that he made himself, and his prints depicted the leaves of fresh plants harvested from his garden or nearby. He pressed them lightly overnight in a book before printing them. All the surviving prints are printed with an ink composed of a light mixture of carbon or ground charcoal and linseed oil. The oil was likely made from pressed flax seeds grown in Germantown at this time. Like his homemade inks, he would have made batches of this linseed oil/charcoal mixture in advance and stored it in an air-tight jar. After his prints dried, he sometimes colored them with green and scarlet red inks. The prints on the cover of his *Artzney und Kunst* have been painted with these inks. In the last pages of his *Artzney und Kunst* are his recipes for ink, printer's ink, and paint, including green, blue, and vermilion inks. Although his methods were simple, he was adept at applying the mixture of linseed oil and ground charcoal on small and delicate plant leaves and blossoms. The prints are well made and for the most part clear of bubbles and smudges. To compose and print plants as he did, he would have used tools such as tweezers, scissors or a sharp knife, small paint brushes or feathers, some kind of burnisher or roller to apply even pressure, thin cloths, extra paper, and a very patient, steady hand. He may have created these prints at the same desk where he wrote.

The two leaf impressions on the title page of his *Artzney und Kunst* appear to be of sage (*Salvia officinalis*) and a leaf from a woody plant from the *Prunus* genus, a

Front cover of *Ship-mate-ship* poetry book decorated with several nature prints by Pastorius. Historical Society of Pennsylvania, collection 0475, dated 1716–19. Top to bottom: leaf of sage, leaves of caraway (*Carum carvi*), the underside of a leaf of a woody plant from *Prunus* genus, blossoms and seeds of caraway, and toothed leaves of arrowhead (*Viburnum dentatum*).

plum or peach tree. This notebook is a small, pocket-sized book of about 200 pages and includes chapters about maladies common to people and domestic animals in Pennsylvania, their respective treatments and cures, and a catalog of over 150 medicinal plants, some indigenous to North America and others from Europe. Pastorius ornamented the cover with plant prints so as to celebrate the importance of medicinal knowledge to spiritual and physical health.

He also decorated the front and back covers of a volume of his own religious poems, his *Ship-mate-ship*, which he wrote between 1716 and 1719. Pastorius dedicated this book to Hanna Hill and Mary Norris, daughters of a friend. He traveled with them to Philadelphia on the ship *America* from Deal, England, in 1683. The poems were written to commemorate their journey, longstanding friendship, and to celebrate the importance of gardening in both the Old and New Testaments of the Bible. The poems read like Biblical histories of gardening. Every aspect of this book was carefully composed, including the content and penmanship of the poems inside.

The plant impressions on the front cover were carefully arranged along the binding, all oriented towards the open edge of the book. The plants on this cover were either grown in his garden or collected in his woods nearby. Pastorius listed caraway, sage, and several varieties of peaches, plums, and quinces in the "Seed Report" of his garden journal and his *Artzney und Kunst*.

The plant impressions on the back cover were also carefully composed, but he playfully arranged smaller specimens around larger leaves. Some of these plants are the same as on the front cover, but there is also what appears to be parsley (*Petroselinum crispum* or *sativum*),

Back cover detail of *Ship-mate-ship* poetry book decorated with several nature prints by Pastorius, 1716–1719. Historical Society of Pennsylvania, collection 0475.

caraway again, and possibly the leaves of inkberry (*Ilex globra*). Inkberry is native to eastern coastal North America and was used by Native Americans to make a black tea. It is also favored by bees, and honey made from the nectar of these plants is particularly flavorful.

Pastorius corresponded and shared books with a Philadelphia man named Lloyd Zachary and taught him Latin and French for several years. Zachary would later become a medical doctor who helped found the University of Pennsylvania and Pennsylvania Hospital. There is one letter to Zachary in Pastorius' *Letter Book* that includes instructions for nature printing, writing with figures of plants, and actual prints of plants. He begins the letter with a poetic description of printing plants as part of a botanical alphabet and imprints of what appear to be leaves from a peach tree and from wormwood: "The stamps in ev'ry garden grow, ...If thou desire to learn this Art."

Zachary replied to this letter on October 25 with a beautiful, folded assemblage of pressed plants and plant prints. Pastorius then replied to Zachary enthusiastically on October 29: "I unbreathed the mysterious Gordian knot and let them glance upon the green, red, yellowish & purple Sage-Rose & other fine leaves in the margent. Oh what a staring, gaping & gazing! ...than upon the circumference & counterfeited shadows." This folded package made by Zachary was an artful composition with a poem by Ovid written in Latin, surrounded by green, red, yellowish, and purple prints from a "Sage-rose." The "counterfeited shadows" were nature prints—to be counterfeited was to be printed.

Through all of Pastorius' allegories, philosophizing, and imaginative ideas about plants, it is clear that he gardened for pleasure and recreation, to connect with what he believed to be the divine dimensions of nature

Letter written by Pastorius to Lloyd Zachary, dated 1718, instructing him on how to write a botanical alphabet and print plants from a garden. Historical Society of Pennsylvania, collection 0475.

This letter from Pastorius to Lloyd Zachary was written between spring and October of 1718. Large parts of the letter are difficult to read as this part of his letter book is damaged, so I have only included an excerpt here.

Source: Francis Daniel Pastorius, *Francis Daniel Pastorius Papers 1683–1719*, Vol. 5, Collection No. 0475, Pennsylvania Historical Society.

As hereby I do hint.
The stamps in ev'ry garden grow,
In Orchards, Meadows, Fields;
Some with Industrious hands then Sow,
And some dame Nature yields.
If thou desire to learn this Art,
Take with thee three or four [plants],
And then the ... will impart
In less than half an hour.

abundant in plants. But he also wanted to make a comfortable, healthy, beautiful place in his world. Pastorius did not compartmentalize spiritual health from physical health. His spiritual being derived from his physical being—both were balanced, maintained, and venerated in his daily life. Gardening was his way of living a healthy Christian life. It is common to assume that early American gardens, especially those of people of moderate wealth and means, were mostly utilitarian and that garden art could only be found in wealthy Philadelphia estates like Isaac Norris' Fairhill or James Logan's Stenton. Pastorius was not wealthy like Norris or Logan, nor poor, but he believed his garden to be a form of art. He wrote about and printed the images of his leaves and blossoms, and designed, built, and cultivated a large garden, orchard, and vineyard that was productive and beautiful on his own terms.

ACKNOWLEDGMENTS

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Also important to my study has been the continued advice of Dr. Chantel White, Teaching Specialist for Archaeobotany, Center for the Analysis of Archaeological Materials (CAAM), who advised on the identification of plant species from Pastorius' prints and common names. Pastorius' *Letter Book*, *Artzney und Kunst*, *Monthly Monitor*, and *Ship-mate-ship* are all held in the archives of the Historical Society of Pennsylvania. His *Garden Recreations* can be found at The German Society of Pennsylvania. His *Beehive* is held at the Kislak Center of the University of Pennsylvania. Last but not least, special thanks to Mandy Katz and Joel Fry for advising me in harvesting and identifying plants at Bartram's Garden.

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FOR FURTHER READING

Cave, R. *Impressions of Nature : A History of Nature Printing*. London and New York: British Library and Mark Batty Publisher, 2010.

Duffin, J.M., ed. *Acta Germanopolis, Records of the Corporation of Germantown Pennsylvania 1691–1707*. Philadelphia: Colonial Society of Pennsylvania, 2008.

Erben, P., A.L. Brophy, and M.M. Lambert, eds. *The Francis Daniel Pastorius Reader, Writings by an Early American Polymath*. Max Kade Research Institute Series. University Park, PA: The Pennsylvania State University Press, 2019.

Gerbner, Katharine. "'We Are Against the Traffik of Men-Body': The Germantown Quaker Protest of 1688 and the Origins of American Abolitionism." *Pennsylvania History: A Journal of Mid-Atlantic Studies* 74, no. 2 (Spring 2007): 149–172.

Hopkins, G.M. *Atlas of Germantown, 22nd Ward, 1871*, Plate 8 (excerpt). Philadelphia: G.M. Hopkins, C.E. Publisher, 1871, Free Library of Philadelphia, Retrieved from https://libwww.freelibrary.org/digital/item/46258.

Pastorius, F.D., 1651–1719, and Christoph E. Schweitzer. *Deliciae Hortenses, or Garden-Recreations; and Voluptates Apianae. Studies in German Literature, Linguistics, and Culture* v. 2. Columbia, SC: Camden House, 1982.