

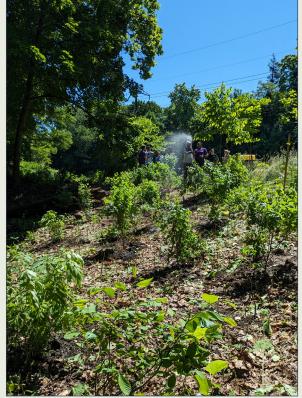
THE STEWARD

Newsletter of the Lower Merion Conservancy

Minimizing Impacts in Ecological Restoration



Japanese hops (Humulus japonicus), an aggressive invasive vine, spreads rapidly and overtakes native vegetation.



Native shrubs, including spicebush (Lindera benzoin), are planted along Vine Creek after knotweed (Humulus japonicus) is cut back.

Invasive species continue to plague local open spaces, upsetting the natural balance of our ecological systems. Plants can create monocultures, destroying biodiversity and collapsing the food web. Insects such as the emerald ash borer can decimate entire stands of trees within a few years, leading to canopy loss in local parks and woodlands. Reducing the impact of these species, particularly invasive plants, often requires removing them—an intensive job no matter the approach—and one that requires constant vigilance to prevent the plant (or other invasives) from returning.

Deciding the best course of action for invasive plant control is a daunting task that includes accounting for costs, inadvertent consequences, and physical labor. When approaching restoration projects, the Conservancy considers all of these factors, paying particular attention to reducing unintended consequences from the restoration process. Robin Wall Kimmerer noted, "...restoring a habitat, no matter how well-intentioned, produces casualties." These casualties can often be overlooked in the restoration process, but they are vital to consider, and the Conservancy is committed to minimizing them.

Ecological systems are ever-evolving with climate change, natural shifts, and species interactions. The end goal of a restoration project at the Conservancy is to reduce biodiversity loss from invasive species and increase biodiversity with the restoration of a native plant community, all while reducing casualties to the larger ecological community.

Often, the first choice for invasive control is herbicide, such as glyphosate. This is a non-selective herbicide that kills all plants that come into contact with the spray. Application of herbicides by qualified professionals to treat invasive plants can be costly and may require more than one application to gain control of the invasive plant. Pesticide use often results in exposed soil as the plants die back, inviting other invasives to settle in and seed. Furthermore, movement of the herbicide in soils and overspray can harm desirable plants, including younger trees, creating casualties in restoration efforts.

While herbicides have their place, alternative methods that may require more upfront labor are also viable for invasive control.

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Minimizing Impacts in Ecological Restoration

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These include smothering stands of invasive plants with plastic tarps during the summer months. This method also heats the soil, reducing the viability of invasive seeds that might be present. Soil microbes, however, are often affected during this process. Microbes are an important component of nutrient cycling, decomposition of organic matter, and stimulating plant growth.

Another restoration effort involves the manual removal of plants. While this is easiest with smaller patches of invasive plants, larger areas can be tackled with enough manpower and determination. This method reduces the overall area of exposed soil. Species can be regularly pulled or cut during the growing season. Constant removal of photosynthesizing portions of the plant will begin to weaken the plant and its root systems. This method, while potentially slower than others in achieving the end goals of native communities, reduces the casualties of habitat restoration something that the Conservancy strives for in restoration work and a leading reason why this is the preferred method when approaching ecological restoration projects.

No matter which method is chosen, a native community will need to be reestablished, and exposed soil covered in native plant communities as quickly as possible. This growing native community will continue to battle it out with invaders, but with vigilant monitoring and maintenance, these new native communities can succeed. Even once native plants are established, invasive plants can still creep up. As long as there are invasive species in our area they will need to be controlled.

While the challenge of invasive species may seem daunting, every effort made to restore and protect our native ecosystems is a step toward a healthier, more resilient environment. With dedication, persistence, and community support, we can create spaces where native species thrive and biodiversity flourishes for generations to come.



Conservancy staff carefully remove invasive vines while protecting the native volunteer plants that are naturally reclaiming the Cottage rain garden.



Invasive stiltgrass (Microstegium vimineum) competing with native jewelweed (Impatiens capensis) along a creek bank.



Native shrubs are watered along the riparian buffer at Vine Creek, previously dominated by a monoculture of invasive plants.

New LMC Intern Spotlight



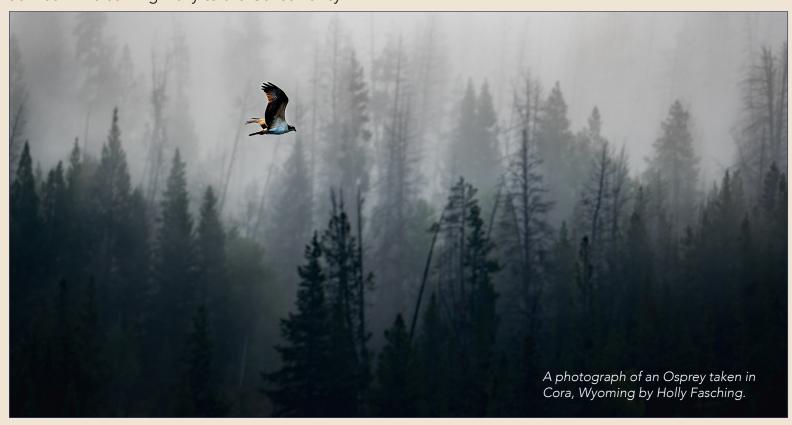
A photograph of Holly Fasching taken by photographer Marcus Smith.

The Lower Merion Conservancy welcomes Holly Fasching to the team as an intern this fall. Holly currently attends Lehigh University, where she studies design. Drawing on her photography and design expertise, she will expand our photo collection and bring new ideas to refresh our brand and publications.

Born and raised in the Poconos, Holly has spent most of her life immersed in and appreciating nature. Through her father, a lifelong photographer, she discovered a passion for capturing and sharing these natural surroundings with others. Her proudest moment as a photographer came in 2022 on a trip to Wyoming when she captured an osprey flying along a ridgeline (see image below). The photograph earned her a spot in the Top 100 of the 2024 Audubon Photo Awards. In her free time, Holly leads Mountain Hawk Birding, a Lehigh University Birding Club that she began with Dr. Barbara Malt, Professor Emerita at Lehigh University, and Deirdre Murphy, Lehigh professor and Lower Merion Conservancy's Climate Action Artist-in-Residence.

Speaking about her upcoming work for the Conservancy, Holly expressed excitement about showcasing the natural beauty of Lower Merion and the Cobbs Creek Watershed to the broader community: "Visual arts have an ability to communicate the value and beauty of local natural spaces that may go unrecognized or overlooked by community members." She also highlighted how visual arts can serve as a unifying force, speaking to and gathering like-minded individuals to generate meaningful positive outcomes. Holly hopes to use this medium to further the Conservancy's goals and mission during her time here.

Join us in welcoming Holly to the Conservancy!



Historic Preservation

Fall Highlights

The Conservancy has four historic preservation events scheduled for the fall! The first on our calendar is a local, easy, day-long bicycle tour through parts of Tinicum Township and South Philadelphia. The tour, occurring in late September, will trace segments of the historic "Great Minquas Trail." It will also include stops at sites where early Swedish and Dutch settlers were known to have lived. Bob Thomas, a long-time friend of the Conservancy and a perennial favorite among our members, will lead the tour! With Bob as our guide, we'll go off the beaten path and enjoy little-traversed spots of beauty along the Delaware River.



Marker commemorating Swedish settlement along the Delaware River.



Minerva Parker Nichols, America's first independent practicing female architect.

Just a week after Bob's cycling ride, we are partnering with the Narberth Borough Historical Architectural Review Board and the Lower Merion Historical Society to offer a lecture about the work of Minerva Parker Nichols, America's first independently practicing female architect. The lecture will be held in Narberth and led by Molly Lester and Bill Whitaker, two of the authors of the recently published monograph, Minerva Parker Nichols: *The Search for a Forgotten Architect.* Why in Narberth? Well, this historic borough contains a collection of houses designed by Parker Nichols! Following the lecture, we will take a walk to see these houses.

If you've been following our social media posts, you may have seen our series on "Traditional Neighborhoods in Lower Merion and

Narberth." In late October, we will take a deep dive into the history of one of the neighborhoods we featured in the series: Toland Farm. This neighborhood, located in Wynnewood, takes its name from the historic farm at its center. Designed during the early twentieth century, Toland Farm is a well-preserved example of a traditional neighborhood. We invite you to learn about the qualities that make this neighborhood unique, including its architecturally varied but harmoniously planned houses.



Finally, in December, the Conservancy will host a lecture about the celebrated Philadelphia architect Frank Miles Day. Does that name sound familiar to you? It may be because Day designed the distinctive brick greenhouse complex in Villanova formerly proposed for demolition. The complex, designed at the turn of the century, is among just a handful of Day's commissions that remain in Lower Merion. Bill Whitaker, Curator and Collections Manager of the Architectural Archives of the University of Pennsylvania, will discuss the garden complex as well as other Day commissions in the region and beyond.



Greenhouse Complex in Villanova designed by Frank Miles Day & Brother.



For a full schedule of all upcoming events visit our website at Imconservancy.org/event or scan the QR code.



Conservancy Awarded Environmental Education Grant to Address Water Quality and Climate Resilience

Southeastern Pennsylvania's freshwater systems face increasing stress from multiple sources, with the most significant threat being nonpoint source pollution entering waterways through storm sewer systems. Data collected by the Conservancy and its partners highlight several concerns, including elevated levels of salt, nitrates, suspended sediments, and inconsistent stream discharge. To address these challenges, the Conservancy has secured a grant from the PA Department of Environmental Protection's Environmental Education program. This funding will be used to enhance understanding of local water quality issues and engage the community, including students, in efforts to tackle these critical environmental concerns.

As part of the project, the Conservancy will install Enviro -DIY monitoring stations, developed by the Stroud Water Research Center, to collect real-time data on local waterways. These loggers will provide data on conductivity (linked to road salt), turbidity (indicating sediment input), and water depth with stream discharge. The data will be uploaded to the "Monitor My Watershed" website every five minutes, offering stakeholders a real-time view of stormwater's impact on local waterways and helping the community understand how stormwater runoff contributes to pollution and flooding, especially as climate change intensifies storm events.

This initiative will engage school-aged children in stormwater education, focusing on how pollutants, particularly road salt, enter streams and how elevated chloride concentrations can affect drinking water supplies. Students will also learn about the increased flooding risks projected as climate change leads to more intense storms. The project will also focus on increasing tree canopy cover, particularly in riparian zones, with tree plantings at schools and other public parks.

Open Space

Partnering for Sustainable Parks

In 2022, the Conservancy worked with Narberth Borough to obtain grant funding to permanently preserve 1.8 acres of open space at 3 Elmwood Ave. Recently named Elm Grove Park, the Borough is in the process of completing a master plan for this new park, as well as for Narberth Park and Station Circle/Town Square. The planning process, undertaken by the firm Simone Collins, will focus on creating a plan that strengthens the Narberth community, provides a quality experience for residents and park users, and promotes active living, recreational opportunities, climate resiliency, and environmental sustainability. To stay up to date on future public meetings, visit https://www.narberthpa.gov.



The 1.8-acre parcel of preserved land at 3 Elmwood Ave., recently named Elm Grove Park.

The Conservancy is actively supporting this master planning process by providing feedback and technical support on various conservation and sustainability options. These options aim to improve habitat quality and create resilience for the community, as well as for downstream environmental justice communities. The Conservancy has provided ecological data on Indian Creek through historical monitoring of water chemistry and macroinvertebrates, along with data from a newly installed logger in Vine Creek. We encourage community members to attend the upcoming public meetings to ensure that your input is included in the master planning process.



Pollinator garden planted by the Conservancy at Preston Field.

In other park news, the Conservancy has been collaborating with a civic group in Haverford Township to introduce conservation landscaping to Preston Park. These efforts included planting 20 trees in the park, which is currently dominated by grasses. These trees will not only provide ecological value but also offer shade for park visitors using the trail and for spectators at the soccer field. Additionally, two large pollinator gardens have been installed, featuring a mix of native flowering plants and shrubs. These gardens add beauty to the park while supporting local wildlife and serving as an educational tool for residents, showcasing alternatives to turf grasses in public and private spaces.

The Conservancy has also continued its work with the Friends of the Cynwyd Heritage Trail, focusing on the maintenance of native plantings and the expansion of the riparian buffer. The Friends hold volunteer days on Wednesday and Sunday mornings to manage Japanese knotweed (Fallopia japonica) populations along the trail. This invasive plant is being controlled through continuous cutting, coupled with the planting of native trees and shrubs in the cleared areas. This approach minimizes soil disturbance, reducing the likelihood of other invasives taking root. The newly planted trees and shrubs will eventually grow tall enough to shade out the knotweed. The work is being done in phases, and the efforts are already showing success, with knotweed stands in the targeted areas thinning and populations decreasing. These efforts will continue in a phased manner, with the ultimate goal of transitioning the buffer from one dominated by invasive species to a thriving native community that provides shade, bank stabilization, and essential habitat along this green corridor.



Volunteers clear Japanese knotweed (Humulus japonicus) along the Cynwyd Heritage Trail, revealing previous native plantings and creating space for new ones.

To complement these ongoing conservation efforts, the Conservancy is partnering with the Friends of Harriton Park to restore a native buffer and forest system along Mill Creek. The banks of Mill Creek were recently stabilized by Lower Merion Township as part of their Pollutant Reduction Plan. The Conservancy project, funded by a PA DEP Growing Greener grant, will enhance the newly graded banks with a robust riparian buffer and remove invasive species such as Porcelain Berry, Mile-a-Minute, and Japanese Hops. The project is in the beginning phases of creating a conceptual plan for the restoration efforts. The first phase of the project will focus on gaining control of the invasive species. Special care will be taken in the planting design, with long-term pressure from nearby invasive species in mind. Plants will be selected that are hardy and grouped in a manner that allows for easy identification and removal of invasive species.



A look at the riparian zone along Mill Creek at Harriton Preserve before restoration begins.

These ongoing efforts in local park systems are essential to creating functioning habitats in the limited green spaces within our region. By shifting the ecological trajectory of park spaces to functioning ecological systems, we can work to create corridors of green that provide needed habitat for birds, pollinators, and other wildlife, creating vibrant communities for all to enjoy.

Growing Greener Communities



The Conservancy continues our Green Streets program with funding from Lower Merion American Rescue Plan (ARP) Non-Profit Vitality Grant Program. Green Streets projects include rain gardens, garden expansions, tree plantings, and meadows, with plantings going on as you read this newsletter. Each project serves as a demonstration for passers-by and provides tangible benefits. Runoff from roofs, driveways, and sidewalks carry pollutants to waterways and contribute to flooding, so any actions that keep rainwater from flowing to streets during storms make a difference.

An added benefit of the project is that it opens up opportunities to expand wildlife habitat at the properties we work on. We only use native plants in Green Street projects to maximize the ecological benefits of the plantings. As the Green Street plants establish they will go to seed and spread, helping the participants keep expanding their gardens and giving them plants to share with neighbors and friends. We want to reach as many people as possible but do not have the bandwidth to help everyone directly.

To expand the Green Streets project, we worked with our partners at Pennsylvania Resources Council, Eastern Delaware County Stormwater Collaborative, and Darby Creek Valley Association to create an online resource growinggreenercommunities.org. Funded by the National Fish and Wildlife Foundation, the website features guides for all kinds of residential stormwater projects, including rain gardens, conservation landscaping, and depaving. The website will help the Green Streets program reach a wider audience and provide support for people we could not otherwise help. Any homeowner looking to help the environment can find a way to make a difference on the website. Our hope is that the resources give site visitors the confidence to take action. The website will grow and develop with time.



Scan the QR to check out the website!

Reforestation in Rolling Hill Park



Friends Central volunteers help weed the Conservancy rain garden in Rolling Hill Park..



Sneezeweed (Helenium autumnale) has spread naturally throughout the rain garden, attracting native pollinators.



Conservancy staff plant native trees in areas around the outdoor playscape after 8 removing invasive vines.

Our garden playscape and education space in Rolling Hill Park is in a state of transition. After existing for years as demonstration wildflower and rain gardens, we are helping the space transform into woodlands. The playscape will continue to be our primary education and programming space. In the last few years, we have expanded the garden beds, letting natives re-seed and emerge in new spaces to expand habitat. We have also planted new trees to complement the trees that have popped up from seed.

Lower Merion, Narberth, western portions of Philadelphia, and most of Delaware County are part of the Northern Piedmont region, which was naturally a forest. While just about all of the old woods have been cut down, conditions in local parks, yards, and gardens are still great for trees. Meadows are temporary in the Northern Piedmont, emerging after forest fires or tree falls. When established plants die or are removed, new plants emerge as part of a cycle called succession. Seeds that had been sitting for years spring to life, with fast growers emerging first. Small grasses and flowering plants are followed by larger ones, forming meadows. Soon shrubs and small trees poke through, creating another layer. Fast-growing large trees start to form a canopy before slowgrowing large trees fill in and take over. Many meadow plants die once the shade is established, but not before spreading seeds that set up future meadows.

Meadows can only stay meadows in the Northern Piedmont region if people cut or pull trees from time to time. If you garden, you have probably pulled up your share of tree seedlings. We have maintained large sections of the cottage gardens as full sun gardens for years and are now letting succession move forward. In a space like Rolling Hill Park, invasive plants make succession more difficult.

Rolling Hill Park was a farm before it was a park, so even the mature trees are not old by tree standards. When farming and mowing activity stopped and plants were given room to grow, invasive plants had already established themselves. Trees like Norway maples (Acer platanoides) and tree-of-heaven (Ailanthus altissima), shrubs like multiflora rose (Rosa multiflora) and wineberry (Rubus phoenicolasius), vines like porcelain berry (Ampelopsis brevipedunculata) and Japanese hops (Humulus japonicus), and smaller plants like stiltgrass (Microstegium vimineum) and lesser celandine (Ficaria verna) have taken hold. Some invasives are more problematic than others, but they all leave their mark.

In Rolling Hill Park and other nearby nature parks, invasive vines take advantage of sunny clearings, growing into thick mats that trees struggle to grow through. These thick mats disrupt the natural succession from meadow to woodlands. Vines climb onto mature trees on the edges of woodlands, shortening the lifespan of the trees and expanding the vine fields even more.

The vines around the cottage have not stopped all progress, even in sunny areas. Established plants—including sneezeweed (*Helenium autumnale*), Penstemon digitalis, Joe Pye (*Eutrochium spp.*), and New York ironweed (*Vernonia noveboracensis*)—have been reseeding and thriving, attracting a range of bees, butterflies, and other pollinators. Tulip trees (*Liriodendron tulipifera*), oak trees (*Quercus spp.*), river birches (*Betula nigra*), and American plum trees (*Prunus americana*) from past plantings have grown well in the nearby fields. Pawpaws (*Asimina triloba*) behind the cottage are bearing as much fruit as their branches can hold. The sycamore (*Platanus occidentalis*) at the upper end of the rain garden is shading out vines, as we hope the younger trees will one day.

Reforestation takes time. The full-sun plants have plenty of years left. Vines will keep trying to claim the space, and we will keep pulling them back. We will plant more trees and continue to protect existing ones. A shaded space will be a more sustainable home for wildlife and our environmental education programs in the long run. We are proud to continue to steward healthy habitat in Rolling Hill Park.



Joe Pye weed (Eutrochium fistulosum) has reseeded well, supporting pollinators.

Pennsylvania Resources Glass Recycling Bin



Not all glass collected curbside is successfully recycled. The Pennsylvania Resources Council's Glass Recycling Bin Project aims to ensure that 100% of glass designated for recycling avoids landfills and is returned to use in new products.

When it comes to recycling, glass is the sustainable choice for consumers. Glass is a 100% recyclable material meaning the same bottle can be remade over and over again without material loss. This helps to significantly reduce the volume of material entering our landfills. It also minimizes the need to refine raw materials, leading to considerable savings in energy and cost. However, the great potential of this closed cycle is not always achieved.

To bring clarity and confidence to glass recycling, the Pennsylvania Resources Council (PRC), a statewide organization dedicated to the elimination of waste and conservation of the environment, has been working to educate residents and provide a higher yield option. PRC has determined that waste companies collecting glass are only able to capture up to 70% of the material for recycling. In response, the environmental organization has created a network of glass recycling bins to recycle nearly 100% of the glass that is collected. The bins hold approximately six tons of glass that can then be picked up and delivered to a regional glass processing facility to be remade into a new bottle. Through PRC, the entire cycle from used to new bottle is completed in just 30 days!

PRC has already achieved great success with the program throughout Western Pennsylvania and is now looking to expand into eastern communities. The Lower Merion Conservancy is actively working to bring a permanent glass recycling bin to Narberth and Lower Merion Township as soon as possible. The program has already made inroads into our area with neighboring Haverford Township already opting into a permanent bin in order to capitalize on its environmental and economic advantages.

Celebrating Art and Nature: Deirdre Murphy's Residency and Upcoming Exhibition

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Last fall, the Conservancy proudly partnered with artist Deirdre Murphy for an Artist-in-Residence program at the Conservancy Cottage in Rolling Hill Park. Deirdre, a contemporary visual artist, has been using the cottage as a creative hub and field station for her study of native plants, bird habitats, and climate resilience. We are excited to announce that Deirdre's work, created during her residency, will be showcased at Chimaera Gallery in East Falls from September 8 through October 26, 2024.

Her solo exhibition, Gradients of Growth, delves into the effects of the Anthropocene climate on tree cavity-nesting birds and East Coast pollinator species through a stunning array of paintings and monoprints. Deirdre's artwork highlights the themes of ecological hope and environmental restoration. Her paintings offer portal-like views of natural landscapes, while her print series is deeply influenced by the Lehigh University Tremblay Herbarium collection—underscoring the vital role of herbariums in climate change research.

Deirdre's work serves as a reminder of the importance of ecological awareness and collective action in healing our planet.

We invite you to visit Chimaera Gallery to experience this important exhibition before it closes on October 26. To learn more about the free special events celebrating Deirdre's work, visit the Gallery's website at chimaeragallery.com.

Deirdre paints in the Fairy Forest at Rolling Hill Park.
Photo Credit: Christa Neu



STAFF PICKS FOR POLLINATOR SUPPORT!

Fall is the perfect time to plant! Explore these staff favorites for ideas on what to add to your garden now to attract pollinators next season.



BLOOMS AUGUST TO OCTOBER

FULL SUN TO PARTIAL SHADE



FEEDS CATERPILLARS MAY TO AUGUST

FULL SUN



BLOOMS APRIL TO MAY

FULL TO PARTIAL SHADE

ASTER SYMPHYOTRICHUM LAEVE LIGHTS UP THE FALL WITH PURPLE BLOOMS, OFFERING LATE-SEASON NECTAR FOR POLLINATORS.

BLOOMS AUGUST TO OCTOBER

FULL SUN TO PARTIAL SHADE

WILD BERGAMONT

BEAUTIFUL FIRECREACKER BLOOMS PUT ON A SHOW LOVED BY BEES, BUTTERFLIES, AND HUMMINGBIRDS!

BLOOMS JUNE TO SEPTEMBER

MBER FULL SUN TO PARTIAL SHADE

MOUNTAIN MINT

ALWAYS A POLLINATOR PARTY BUZZING WITH A WIDE VARIETY OF BUTTERFLIES, BEES, AND MOTHS.

BLOOMS JULY TO SEPTEMBER

FULL SUN TO PARTIAL SHADE

PURPLE CONEFLOWER ECHINACEA PURPUREA

A STUNNING BLOOM AND ESSENTIAL NECTAR SOURCE FOR POLLINATORS DURING THE HEIGHT OF SUMMER.

BLOOMS JUNE TO AUGUST

FULL SUN

JOE PYE WEED

EUTROCHIUM PURPUREUM

SUMMER'S TALL SHOWSTOPPER, TREATING BEES AND BUTTERFLIES TO NECTAR AS THE SEASON FADES

BLOOMS JULY TO SEPTEMBER

FULL SUN

Supporter Spotlight



"Tim and I have supported the Conservancy for almost 10 years. We feel very strongly about its watershed protection & sustainability efforts, especially stream restoration projects & storm water management. I also serve as a board member because it is vitally important to volunteer and do the work that creates change. I am proud of all that LMC & its board accomplish — from protecting the Cobbs Creek watershed, expanding public open space, safeguarding critical historical resources to taking the lead on important sustainability actions, like restricting plastic bag pollution. Being a part of LMC is extremely rewarding."

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