About Michigan Tech

Michigan Technological University (www.mtu.edu) is a leading public research university developing new technologies and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than 130 undergraduate and graduate degree programs in engineering; forest resources; computing; technology; business; economics; natural, physical, and environmental sciences; arts; humanities; and social sciences.

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Please consider supporting the development of our gardens with a donation. Contact 906-487-2310. Specify your gift to the Michigan Tech Fund, account 3171.

Highlights
- More than 850 planted species
- More than 40 garden sites
- Year-round viewing (spring bulbs, summer florals, fall foliage, winter seedpods and snow statues)

Featured gardens
- Rozsa Center (east): perennial cottage garden
- Student Memorial Garden (south of the Rozsa): the language of flowers (each plant has a meaning)
- Keweenaw Boulder Garden (southeast of Dillman Hall): all foundational rocks in the Keweenaw
- Wind Garden (Chemical Sciences): ornamental grass garden
- Cheryl Depuydt Memorial Garden (SDC)
- Memorial Union (south side): veggie garden, pick a few!

Sustainable Gardens

Lynn Watson
University gardener
Our roots

The Grounds Department started the gardening effort with a couple of very small existing gardens in the summer of 2002, with the idea that we would slowly expand the effort. For the first couple of summers, with the help of student gardeners, the existing gardens were cleaned out, trimmed up, and planted with annuals. The student gardeners brought energy and enthusiasm and had some good ideas—the most unique being the flowerpot in the old train car. The hardest part of this undertaking was formulating a plan for perennial gardens and proper layouts that would grow and mature into sustainable gardens. Each succeeding summer brought more work—all with the idea that eventually we would get a master gardener to pull everything together.

That concerted and ambitious effort to plan and plant northern ecologically sustainable gardens at Michigan Tech began in 2008. Our advanced master gardener, with the help of students, has developed more than forty sites. Thoughtful, well-researched landscaping has resulted in self-perpetuating gardens. The fruition of these efforts resulted in trees, shrubs, and perennials in permanent sites. Growth influences gardens. The fruition of these efforts resulted in trees, shrubs, and perennials in permanent sites. Growth influences common to any garden—sun, shadow, wind, water, and soil—were applied on a large scale.

The campus environment, then, has patterns of sun and shadow, cast by buildings and trees, that change daily and annually. Water can be provided by natural drainage, hose bibs on buildings, and an existing (though fragmented) underground watering system. Basement walls also direct water and influence root and plant growth. Lake Superior winds are a major influence. Northwesterly air masses can roar in at up to fifty miles an hour, blasting through campus winds are a major influence. Northwesterly air masses can roar in at up to fifty miles an hour, blasting through campus

Sustainable Gardening at Michigan Technological University

Our dreams for the Michigan Tech gardens include:

- Use existing steam tunnels for pipes that would provide irrigation from Portage Lake, as is done at Mont Ripley for snowmaking. (Estimated cost: $1.5 million).
- Construct an aeolian wind harp to demonstrate physics in the Wind Garden on the south side of the Chemical Sciences Building.
- Fashion arbor sculpture dancers at Walker.
The green areas on the map show the locations of the gardens. The number in parentheses corresponds to the building number on the campus map. The year indicates when the garden was planted.

The west end of campus

1 Administration Building (1)—2008

The garden on the south side of the building is a cottage mix of old-fashioned perennials welcoming parents and students as they approach the building. This south side is a sun oven. Building, pavement, and hill reflect heat and light into this space. Deep mulch keeps plant roots cool, while the radiant light supports nonstop blooming. This is a good example of mixing in new plants with plants already on site supports nonstop blooming. This is a good example of mixing in new plants with plants already on site. The shady north side, which is constantly blasted by drying, dwarfing wind, lilac, and forsythia. The shady north side, which is constantly blasted by drying, dwarfing wind, lilac, and forsythia. This mixed hedge creates interest for every season. Birch leaf spireas, variegated weigela, dusty miller, purple sage, and arborvitaes make up this curved hedge. It is backed by a second hedge of blueberries, yellow iris, and shasta daisies. This mixed hedge creates interest for every season. The backdrop color of these gardens is a façade backdrop color of these gardens is a façade. The west end of campus has expanded twenty times within the last three years. Watered with some of the old in-ground sprinkler systems, it is a lush example of the power of perennials. Shaded by oaks and lindens, the alpine currants, mock orange, and black lace elderberry shrubs slow the flattening wind. Inside, a half circle of dwarf north star cherries bisects the garden’s access paths (think of the lines on a basketball). Many of the stones that line the paths invite the passersby to take a quiet detour and look.

20 R. L. Smith Building (20)—2010

On the southwest, a small lens of green is set between high-traffic sidewalks. Tech students like to go efficiently from point A to point B. Soon, they beat dirt paths right over the top of these mounds. So, the crab apples on the site were NOT pruned to discourage passage. Rose glow barberry (prickly) and daw’t’s ninebark (tough) were transplanted. Large rocks were placed across the mound to remind bikers and walkers to stay on the sidewalks.

B Bridgett’s Garden (B)—2003

Bridgett’s Garden is dramatically backlit despite the shade of overhanging linden trees. Shifting shadows and the wind-contorted limbs of stubborn crab apples stretch over the encircling smoothness of stones, inviting artistic interpretation in all seasons.

C Claire’s Garden (C)—2008

Claire (a business major) was another student gardener. She liked blue and white. Hollyhocks, roses, and iberis (summer snow) are the whites. Pansies, Johnny-jump-ups, and columbine are the blues. Burgundy heuchera and pygmy barberry add colorful shadows. The cobblestones (old beach rocks) were dug up by hand that year; now we use a backhoe to tease up rocks out of the soil and mix in amendments.

D Deanna’s Garden (D)—2009

Deanna (civil engineering) liked yellow for her student garden. Hot sun and deep shade are both factors in this garden. Yellow iris, golden barberry, yellow coreopsis, and happy arctic poppies give this garden brightness.

MC Magnolia Courtyard (MC)—2010

This courtyard features a northern catalpa. These trees have white flowers in early summer—brown seedpods and golden leaves in the fall. Doing double duty, they are interesting from inside of Fisher (breaking up the long view of traffic) and outside they offer shade.
Vertical plantings, maturing at the second or third story, bring a human scale to the height of this building. Transplanted amur maples, tatarian honeysuckle, day lilies, shasta daisies, Japanese iris, and roses attract the eye and satisfy the onlooker. To the right, shade-loving yews act as a windbreak under the white pine.

The Dow garden consisted solely of landscape stones before 2008. Removing them—with the root-infested landscape cloth—was like raising a heavy, rotten rug. This work exposed packed, sandy soil ready to be improved with the “lasagna method.” This garden is sheltered enough to grow redbud trees. These pink spring bloomers echo the early perennials beneath them. The limbs have been cut higher up the trunk, which raises the canopy and allows more sun to get underneath. As the redbuds leaf out, shade deepens throughout the summer. Foxglove, bachelor buttons, and iris thrive here. Toward the sunnier back and sides, delphinium, Foxglove, bachelor buttons, and iris thrive here. Toward the sunnier back and sides, delphinium, irises, and hollyhocks accent the view. The wormwood trailing along a few remaining stones suggests a stream. The burning bushes against the front face of the building were transplants from a snow-piling area that suggests a stream. The burning bushes against the front face of the building were transplants from a snow-piling area. The garden to the left has more sunlight than the shaded garden. Old fashioned rugosa roses, bridal wreath spirea, staghorn sumac, and day lilies are a welcome perennial ensemble. Balancing visually the front face of the building was a challenge. The garden to the left has more sunlight than the shaded garden on the right, which can make plant growth uneven without specific pruning.

The Keweenaw Boulder Garden features glacial boulders, examples of the foundational rock of the Copper Country. This garden is a dream fulfilled for Professor Bill Rose (geology). The full explanation of the process can be googled at “Keweenaw Boulder Garden.” The sparse plantings do not distract from the aesthetic placement of each rock and each rock “family.” Heavy leaf mulching is pinned in place with “deer netting” to hold in place the landscape outlines beneath the rocks. This is primarily a foliage garden—leaf and stem color, shape, and texture are the focus—so as not to distract from the rocks.

When the Rozsa was built, a perennial garden was planted along the east front. This garden had enough plant material to expand into a stunning presence, widened by thirty feet, down to the sidewalk. The garden is now in proportion to the two-story façade and the expansive parking lot in front. Enlarging the garden allowed

East end of campus

Keweenaw Boulder Garden—2010

This garden is a memorial garden for students and faculty who died while attending Michigan Tech. The soil was basically sand. Amendments started with dump-truck loads of leaves and manure, four feet deep, in the fall of 2009. In the spring, this soil was ready for planting. Each plant has a meaning in the “language of flowers.” This use of plants to communicate specific human emotions has been a part of human history. In 1884, Kate Greenaway’s Language of Flowers was a popular book on the symbolism of flowers in Victorian England. This book is the basis for this garden. Plant specimens were labeled with the floral meaning, common name, and scientific name. Two white firs, already in place, symbolize “Time,” while the imperial honey locust, newly planted in the center, symbolizes “affection beyond the grave.”

Memorial Garden—2010

The south side of Walker is sunny and sheltered. Much road and foot traffic goes by. This soil was rebuilt in multiple soil amendments. Perennial roses, pink tamarisk, golden elderberry, a golden chain tree, and staghorn sumac are obvious. Three dawn redwood (Metasequoia) trees make this garden interesting. These are an ancient, deciduous evergreen, thought to have been extinct. They were rediscovered in China in 1940 and seem to be thriving here.

Walker Arts and Humanities Center (11)—2009

The south side of Walker is sunny and sheltered. Much road and foot traffic goes by. This soil was rebuilt in multiple soil amendments. Perennial roses, pink tamarisk, golden elderberry, a golden chain tree, and staghorn sumac are obvious. Three dawn redwood (Metasequoia) trees make this garden interesting. These are an ancient, deciduous evergreen, thought to have been extinct. They were rediscovered in China in 1940 and seem to be thriving here.

10 Rozsa Center, South (10)—Student Memorial Garden—2010

This is a memorial garden for students and faculty who died while attending Michigan Tech. The soil was basically sand. Amendments started with dump-truck loads of leaves and manure, four feet deep, in the fall of 2009. In the spring, this soil was ready for planting. Each plant has a meaning in the “language of flowers.” This use of plants to communicate specific human emotions has been a part of human history. In 1884, Kate Greenaway’s Language of Flowers was a popular book on the symbolism of flowers in Victorian England. This book is the basis for this garden. Plant specimens were labeled with the floral meaning, common name, and scientific name. Two white firs, already in place, symbolize “Time,” while the imperial honey locust, newly planted in the center, symbolizes “affection beyond the grave.”
The center of campus, east to west

**Fisher Hall (15) (South Parking Lot)—2008**
Small strip gardens are often located around buildings. Here is an example. Seen from the road, beyond a parking lot, this garden had typically poor soil filled with sandy backfill, bricks, pipe, and miscellaneous items thrown out of windows as the building progressed. Simple perennials with bright colors, as well as easily trimmed junipers, fill in the space. Yellow yarrow, red Asiatic lilies, red Asiatic poppies, and huge, happy hollyhocks hold their own in this hot, narrow space that has drip irrigation.

**Kanwal and Ann Rekhi Hall (28)—2009**
Rekhi Hall is a modern grey and silver building set in among buildings of rose brick. Black slate walls run about eye level. Black and yellow are the University colors, and high-contrast plants are the right accent. Between two small gardens on the east side, a ginko tree, a white-limbed birch, and ash-leaved spirea all have golden leaves in the fall. On the south side, a golden chain tree, staghorn sumac, various potentillas, forsythia, and day lilies stand in severe winds and hot sun. The evergreens are all campus transplants.

**J. R. Van Pelt and Opie Library (17) (RB) Formerly, “the Rose Bowl” was a dusty washout with a drain hole. Scoured by wind, with intermittent sun due to building shadows, it was a challenge. From inside the library, it was a visual focus. With treatments of manure, paper, and hay, the site was readied. Transplanted ninebarks, blueberries, miss Kim lilacs, and shrub roses help break air movement. Peonies, hydrangea, barberry, and small sumacs lend texture and interest. Chocolate mint (nibble a piece!) surrounds the rain drain. Iris lends vertical interest.**

**Memorial Union Building (34)—2009**
This major landscape surrounds a single Norway spruce that was planted as a Vietnam Memorial Tree. This is a dry, windy area with poor, sandy soil. All evergreens were relocated from random scatterings across campus. Trees and bushes were arranged in an arc to help stop the wind. The arc is in a staggered line to reduce northwest airflow from Lake Superior. This garden is viewed from the road, the walk, and the inside eating area. Texture and leaf color are the backbone of this plot. Golden spirit smoke bush, golden elderberry, golden showers climbing roses, and sunkist arborvitae—all pick up Tech’s gold color theme. Shaded for most of the morning, the plants need to be able to absorb the hot, persistent, west sun.

**Michigan Tech’s Cottonwood Triangle (CO)—2009**
The hedge in this triangle is bordered with transplanted currant bushes, plants that like the soothing light shade. Inside are burning bushes, a forsythia, and shasta daisies. This is a dry, shady site with plenty of wind.

**Harold Meese Center (84)—Planted 2008**
A sunny, protected southern exposure is enjoyed by trellised Henry Baffin and Joseph’s coat roses. Pink and red knockout roses bloom into fall’s first snows. Blue sage and silvery rose campion provide accents around these sidewalk gardens. Transplants of red Asiatic lilies and pink Jupiter’s beard grow under the filtered shade of resident crab apples, lindens, and sugarplums. Thorough pruning of these trees made navigating the sidewalk safe. An elevated canopy allows more light, deeper into the back of the garden.
Upper Campus

24 Student Development Complex, north hockey entrance (24)—2009–10
Reflective glass doubles the color and texture of grey dogwood, golden smoke bush, foxi pavement roses, day lilies, and flowering quince.

24 Student Development Complex, The Depuydt Garden (24)—2009
This memorial garden is a happy, south-facing hotbed. The dusty miller returns every year, representing skating ice. Near the plaque, symbolic hen and chicks, fragrant creeping thyme, and low junipers reinforce other ground covers in an intricate carpet to aid in weed suppression. Yellow was Cheryl’s favorite color, which is why dwarf evening primrose accents the statue. The figure is a skater, preparing for competition, who seems to weep after a rain.

SDC Planter—2009
The SDC is used from 6:00 AM to midnight, so the planter is always “on parade.” These narrow planters are located against a south-facing brick wall. Temperatures can rise to over 120 degrees on this surface. Goldflame honeysuckles climb on trellises, which allows cooling air to move behind them. Yellow darwin tulips behave as perennials and brighten each spring for graduation. Old gold and blue rug junipers add seasonal interest when not buried in snow. Annual marigolds and geraniums give summer color. In the fall, the geraniums are potted up to bloom inside, on campus windowsills, bright against the snow. This planter is drip-irrigated, heavily mulched to keep the roots cool, and organically fertilized monthly—all to support blooms.

SDC (Patio Area)—2010
Spring sun allows golden lights’ rhododendrons to bloom unhindered by shade. Native white fringe trees bloom between round-leaved golden spirit smoke bush. The spaces between the little king (dwarf) river birch are filled with perennials. Blue and yellow cumbine, red astilbe, and pink foxglove boost summer color under increasing shade. Bright orange and yellow Helen’s flowers welcome fall. This is another garden viewed from the backside, indoors, as well as the front.

18 U. J. Noblet Forestry Building, 7th Street (18)—2010
This memorial garden was planted as a native understory. Old oaks dominate the site. Mulched leaves from campus were mixed in with cow manure and soil to approximate the rich texture of forest loam. Staghorn sumac, tulip trees, rhododendron, azaleas, pagoda dogwood, buttonbush, spirea’s sweet fern, elderberry, nannyberry, highbush cranberry, big leaf aster, and ostrich ferns are some of the plants becoming established. Native ground covers and blooming forest floor species will continue to be added.