Greetings Laurel Hill Associates and friends of Stockbridge. The big day has arrived. I am humbled and honored to be standing at this historic rostrum to share some remarks that will connect me both to the illustrious history of all those famous speakers who have gone before. I will also attempt to the these remarks to the time and place on this Earth within which we find ourselves today!

I must thank your wonderful President, Hilary Somers Deeley, for reaching out back in May, enticing me up to Stockbridge with an offer of a sandwich, to learn a bit about your organization, and to see this hallowed place at Laurel Hill Park. I must confess, I had no prior knowledge of Mary Hopkins Goodrich or of what she first inspired here 170 years ago. I had only limited knowledge of the famous families of Stockbridge such as Choates, Sedgewicks, Frenches, and Seargents, to name but a few. To help with my edification, Hilary kindly sent me one of the rare copies of Margaret French Cresson's centennial history of the organization which I began to read with great interest. As fate would have it, my nine-month-old Rhodesian Ridgeback puppy, who had also accompanied me to Stockbridge that day and had caused a bit of commotion in town, had grown tall enough to grab

things off my bedside table. Alas, I must now confess, he literally tried to eat, and in fact, ate some of my homework (Hold up remains of book). But though the cover is terribly tattered and torn, the written pages survived along with the wonderfully recorded history of this organization. You and your predecessors' good works have clearly spawned and inspired, over the many decades since, a wider movement in municipalities and towns across America to achieve such an enlightened sense of community pride, providing for services and lifestyle improvements that the town managers might to not be so inclined to undertake. Well done to Mary Hopkins Goodrich and your Laurel Hill Association; you've succeeded beyond your wildest schemes. Stockbridge truly has been in the vanguard in this respect.

I hail, as Hilary said, from the little village of Norfolk, CT. and have spent much of my adult life working and residing there with a large extended family and my wife Michelle, our three children, and now a fine son-in-law and two wonderful granddaughters, Rowan and Daphne (note the horticulturally themed names) for whom I will dedicate my remarks today. Both girls, like young children the world over, are already deeply curious at an early age about the natural world that surrounds them. I am sure they will in time come to learn how lucky they are, as are all of us,

to be living and breathing in these green, re-forested hills of southern New England.

Dr. Rachel Carson, whose book titled <u>Silent Spring</u> on the dangers of persistent poisons in the web of life, virtually launched our modern environmental movement. But she also wrote another book celebrating children and Nature titled <u>A Sense of Wonder</u>. One quote that has always guided me since first seeing that book on my father's bookshelf goes something like this:

If children are to keep alive their inborn sense of wonder, they need the companionship of at least one adult who can share it, rediscovering with them the joy, excitement, and mystery of the world we live in.

Such was the experience I had growing up in our large family-owned forest with a father who regularly spent many hours with us out in the forest exploring and encouraging us to see, learn, and understand all we could about the woods. I

am sure my granddaughters will find their lives similarly enriched by nature. And no doubt Laurel Hill, with your wonderfully protected forests and beautified streetscapes, has provided similar wonderment for generations of Stockbridge children and families.

But before I go too far into the history of that family forest and my involvement with land management and ecological restoration, allow me a few moments to reflect on where we are on the current trajectory of natural systems and, dare I say, what I commonly refer to as our "perturbed global climatic regimes".

## What a Summer this has been both here and all around the northern hemisphere! We began in June breathing unsafe air masses that conveyed into the Northeast and Atlantic states harmful concentrations of fine particulate matter, spiking our air quality indices off the chart, and filling our skies with smoke from far off fires in the forests of northern Quebec and even as far away western Canada. Following the smokey air masses, our wobbling jet stream led to formation of oppressive heat domes which began to form and lodge themselves over the American southwest, across Europe , Eurasia, and the Far East! July was pronounced the world's hottest month ever on record, and on July 3<sup>rd</sup> world news

media reported that day's average global temperature had marked it the hottest day ever recorded on Earth and suggesting more records will surely follow.

Mainstream news coverage widely reported that surface ocean temperatures in places around the globe were also reaching new records with the Gulf waters off the Florida Keys and the western Mediterranean approaching 100 degrees Fahrenheit, leading to devastating increases in coral bleaching events and tragic coral reef mortality in many parts of the world. Considering that over 70% of our planet is covered by open oceans, the amount of solar heat they daily absorb and retain grows more worrisome and dangerous with each passing year. There is an astonishing scientific fact that our oceans absorb solar radiation equivalent to 4 thermonuclear blasts, the size of which destroyed Hiroshima, every second of every day. Deep ocean currents move that heat from mid latitudes to the polar regions to redistribute and release it, but less and less of that heat is able to be dissipated back into space. Much of it, like our terrestrial reradiation, is trapped in the lower atmosphere, as if under the glass in a greenhouse. With each passing year this heat trapping effect increases as our civilization's scale of fossil fuel emissions grows, forest clearing continues unabated or forests are lost to the increasing intensity of wildfires. The rising concentrations of carbon dioxide molecules now at 419 ppm and other off gassing

molecules of our modern world trap more and more heat in our trposphere. It should come as no surprise that I choose to side with more than 97% of climate and environmental scientists who are adamant that we are on a very dangerous and existentially threatening trend.

Here in the northeast, it was not so much the heat in July, but the excessive rainfall events that rapidly overwhelmed our stormwater management systems destroying roads and bridges and pushed rivers out of their banks. Poor old Vermont, where storms stalled for a time and continued their deluge, experienced some major flooding damage. Atmospheric physics is not a partisan science. It simply sticks to the laws of thermodynamics and biogeochemistry, such as evaporation, transpiration, and saturation. Science is quick to point out that with each degree Centigrade rise in average air temperature, the amount of water vapor held aloft will increase by 7% or simply put, a warming atmosphere can increase water vapor suspended aloft **exponentially.** Water vapor is the most abundant and also a very potent greenhouse gas which leads to a logical feedback loop. When warm air masses collide with cooler air masses aloft, the excess vapor rapidly condenses and falls back to earth. The passing storms we experience might

now become known as "rain bombs", dumping water earthward at unprecedented rates... In the tropical latitudes, low pressure systems passing over now superheated ocean waters rapidly intensify and often lead to more destructive hydrological events, even if their accompanying wind fields do not actually achieve hurricane force.

With respect to our recurring heat waves, the drying effect of excessive heat literally sucks the soil moisture out of our forests and landscapes setting them up to become the tinderboxes that we are seeing more and more of. The numbers and size of wildland fires have increased throughout the summer months across North America, the Mediterranean region and the Russian far east. Welcome to what some climate scientists are now calling the Era of the Pyrocene. If I had the ability to graphically display the areal extent of Canadian forest consumed this year alone, set against all other years, it would literally be eye popping (I might even have to use a step ladder to point to the top of the chart just as Al Gore did in his famous movie on climate "An Inconvenient Truth". The now so-called western "fire season" is not even over yet. Already, 10 times more Canadian forest has burned than does in an average year. The area burned thus far equals Greece in size or approximately 30 million acres. With that amount of forest loss, the released carbon stored in living trees equals 290 million tons.

Scientists have equated that to the annual fossil fuel emissions of Indonesia, and more emissions are yet to come with most fires still burning out of control in the northern boreal forest. And it should not be forgotten that such vast areas of boreal forest, and all forests lost to fire, exert compounding effects on the losses of biodiversity. Critical habitat area is lost in these immolated forests that once provided for avian, amphibian and mammalian fauna alike, not to mention critical plants and fungal associations. Sadly too, many of these northern wildfires are impacting remote indigenous communities and their traditional subsistence ways of life.

Another tragic conflagration of this summer happened because of the combined forces of a rare category 4 Pacific hurricane passing south of Hawaii that whipped up and sustained otherwise light seasonal trade winds. Combined with the "flash drought" conditions of excessively dry, invasive grasses and desiccated forests on western Maui, electrical transmission sparks led to the terrible fire in what foresters call "the urban-wildland interface". The wind driven flames rapidly overwhelmed the historic, native Hawaiian royal seat and beautiful city of Lahaina. Had preventative vegetative management efforts, fire breaks, building codes and adaptive climate risk management planning been in place, not to

mention adequate municipal water supply and pressurization, much of this horrendous tragedy might have been avoided.

And then, to bring us up to where we are as we head into Labor Day and bid farewell to this dreadful summer of 2023, Hilary with one "L" was in the news again! No not your dear President Hilary Deeley and not our much maligned former Secretary Clinton, but once again a most unusual, unprecedented, firstever, unexpected, extra ordinary, (you may choose the right qualifier for which conservative atmospheric scientists are more often than not loathe to do), large Category 4 hurricane to a tropical storm made a first ever landfall in the desert biome of Baja and the American southwest! Palm Desert received nearly a year's worth of precipitation in 24 hours not to mention the San Bernadino Mtns which saw as much as 18 inches of rain that caused massive mud slides and debris flows originating out of former wildfire burn scars. This notorious tropical depression, **Hilary**, continued moving northwards into the dry inland empire regions of Idaho and eastern Oregon and western Montana. If there is a silver lining to that massive storm cloud, if you'll pardon the expression, Hilary's rains might just have mitigated some wildfire potential in those tinder dry regions this year. This year has also seen extraordinary rainfall and flooding events occur in Brazil, central Africa, Italy and Slovenia, Beijing China, and across northern India and south east

Asia. And here again, the science of climate modeling indicates that continuing anthropogenic atmospheric warming will only lead to more such extreme precipitation events.

But LHA President Hilary asked me not to be too depressing in my remarks about the state of our world and dwell too much on such climate related extreme weather events. If anyone is interested, there is an emerging field of climate research and forensic meteorology aptly named "extreme event attribution". Philip has followed me on Facebook now for several years, and he will have come to know me a bit of what some in this day and age refer to as a "doom scroller"; one who posts or reposts the stories of extreme weather and human suffering for all to see. I have made a habit of following the social media posts of many of the world's leading climate scientists; many of whom are pessimistic not surprisingly. But one in particular, the senior climate scientist for The Nature Conservancy, who posts regularly under the username The Real Professor Katharine Hayhoe, still believes we have ample time and technology to reverse course, cut emissions, and drawdown a sufficient amount of the excess carbon molecules that we have injected into the atmosphere since the dawn of the industrial age. Dr. Hayhoe does not fit the mold of your typical climate science advocates. She is well respected, first and foremost, and a brilliant scientist when it comes to the

complexities of atmospheric physics, thermo and fluid dynamics. But she is also a devout and practicing Christian evangelist. She, unlike many of her fellow evangelicals who choose to deny climate science, believes that we, in fact, do have a mandate from the Almighty herself to take better care of all biodiversity, wonderous life forms and life affirming natural resources over which the creator insisted we have dominion and practice good stewardship. She is often heard saying in a TED talk or on her PBS vlog posts called **Global Weirding**, that in order to make a real difference when it comes to the topic of climate change, we all need to talk about it as much as we can in small gatherings or at public meetings. Her Blog titles are both humorous as much as they are meant to be thought provoking intros to the science. Here are a few: "Is Carbon Dioxide really a pollutant?" "I live in the Midwest...does climate change matter to me?" "This is something happening 80 years from now... so not my problem" or what she calls the six stages of denialism: "It's not real. It's not us. It's not that bad. It's too expensive to fix. Aha, here's a great solution (that actually does nothing). And – oh no! Now it's too late. You really should have warned us earlier."

But it is happening now and increasingly extreme heat, floods, and fires are affecting the people who are least able to do anything about it and who surely

contribute least to the causes of climate change. I believe we are at an inflection point in history. A crisis with clear and present dangers much the same as the historical "fear of a wood famine" led our earliest forest conservation leaders to establish timber reserves and to restore and protect forested watershed lands here in New England and across North America. Then, the emerging sciences of forest management and ecological restoration were born out of a necessity to stop the wanton destruction and over harvesting of public and private forest lands in the latter part of the 19<sup>th</sup> century. The Progressive era ushered in a whole new public approach to the importance of protecting and managing our nation's forest lands. The Cradle of American forestry was first established on the cutover forest lands and vast estate of Cornelius Vanderbilt in Ashville North Carolina. At the behest of his landscape architect Frederic Law Olmstead, Vanderbilt hired a German forester Carl Schenck and Gifford Pinchot, a recent Yale College graduate who had studied some forestry in France. Mr. Olmstead is purported to have said to Mr. Vanderbilt in 1896, 'This is your chance, this would be a great contribution and service to the country, to show how a systematic managed forest could not only benefit the land, but the landowner at the same time."

According to your historian Mary French Cresson, The Laurel Hill Association's incorporation in 1904 coincided with your organization's support of

two bills in the Massachusetts legislature for the appointment of a state forester and better protection of Massachusetts' forest lands. These initiatives were right on the heels of Connecticut's 1903 establishment of a state forester and its first state forest, preceded in 1900 by the creation of the nation's first graduate school of forestry at Yale University with a generous gift from the Pinchot family. The risk of a future "Timber famine" was an overarching concern when Gifford Pinchot, founder of Yale's Forest School and subsequently the US Forest Service, took to advocating and fighting special interest groups for a system of national forest reserves. His clarion call for the scientific management and sustained yields of timber from our nation's forests was encapsulated in his paraphrasing of Jermey Bentham's utilitarian philosophy of "The greatest good for the greatest number over the long run". 'Over the long run' was added to ensure that people understood the ability of forests to be maintained in perpetuity and still continuously yield public goods and services.

It was right around this same point in history that my grandfather and namesake along with his Yale College classmate Frederic Walcott came from New York City to Norfolk, Connecticut to establish a large private land preserve. They intended it to demonstrate the importance of restoring heavily cut over forest lands while at the same time reintroducing wild game animals that had been extirpated from those lands or were continuing to be overhunted elsewhere to the point of no return. At that time, they were witnessing the wasteful decimation and decline of the great plains bison herds, the ever-diminishing flocks of passenger pigeons which were soon to go extinct, and many other migratory waterfowl overhunted for feathered adornments in the millinery trade or meat markets, and they felt it their duty to take a stand. Their fledgling Childs-Walcott game preserve was created specifically to demonstrate for others how important the work of conserving and restoring natural forests and aquatic habitats in the landscape was for the protection and preservation of game birds and animals, of which they themselves also enjoyed in the sport of hunting.

The forests then, probably much like this part of western Massachusetts, had been cleared away for hard scrabble farms or heavily over harvested in order to provide fuel wood for homes, and even more so, industrial fuel for the many iron furnaces and forges that were sited along the Housatonic River and its tributaries where waterpower could be harnessed. The mountainous forest lands were owned by several iron companies for the production of charcoal which was an exceedingly high carbon fuel; perfect for smelting the rich iron ores of this region. The historic Salisbury iron industry did not fail for lack of ore, limestone for flux, or waterpower, all of which remained abundant. Rather, by the early 1900's the forests could not regrow fast enough to provide more charcoal. My father recalled as a young boy of 6 years old in 1911, riding his pony over the old charcoal trails on the mountain, that he could see over the tops of the tiny stump sprouts, seedlings, and shrubs that were the beginnings of a new forest recovering the rocky uplands. Childs and Walcott acquired a few abandoned old farms and myriad deeds to the mountain top charcoal lands for as much as five to ten cents an acre. Quickly, they stitched together thousands of acres, much to the amusement of locals who felt these city slickers were spending "their good money for seemingly useless, no good, rocky land up on the mountain".

Over the course time, my father attended Yale College and then Yale's Forest School to better understand the management of what had become the family's nearly 10 square miles of regenerating, native hardwood and hemlock forest. In the 1930's he, Ted Childs, took over his father's ½ interest in ownership and renamed the former family game preserve, now a rapidly regrowing forest, Great Mountain Forest. He had learned from a local historian that native Americans like the Schaghticokes and Mohawk tribes who frequented the Housatonic River valley had referred to the steep-faced Canaan Mountain massif and plateau with its plentiful wild game as the Great Mountain.

Over the years since, the forest has been professionally managed by several full-time, trained foresters and numerous student interns whose study of forestry and natural resource management is augmented by their summer practicum at Great Mountain. After Yale's Forest School lost much of its 7,000 acre standing forest in eastern Connecticut to the gale force winds of the great Category 5 Hurricane of 1938. My father and his co-owner then US Senator Walcott had erected and donated a summer camp on their forest land so that field training of Yale foresters could continue uninterrupted near to New Haven. This also kept the forest engaged with Yale's emerging science of silviculture and encouraged Yale professors to conduct field research on the forest as well.

Forest Patholgogy:

During the early days of the 20<sup>th</sup> century, our New England and Appalachian forests lost one of the greatest tree species and a phenomenal resource when the accidental introduction of a soil fungus from Asia decimated the American Chestnuts everywhere. To this day that is considered one of the greatest ecological tragedies of our time. We still find the rot resistant stumps of salvaged

chestnut trees , and in some cases, standing dead stems leaning against a neighboring tree way out in the forest. Early on, my father worked with pathologists and forest scientists at the CT Agricultural Experiment Station to try and develop and reintroduce disease resistant strains of chestnut, and to this day we continue to work with the American Chestnut Foundation to develop disease resistant hybrids from our experimental breeding orchard similar to the many sites which have been established throughout chestnut's natural range. I always note the sign post indicating a similar experimental orchard here in Stockbridge each time I drive by heading north on Rte 7.

The loss of Chestnut was but the first of many ecological assaults and invasive affronts that have befallen our New England forests. We continue to deal with periodic outbreaks of the introduced and infamous Gypsy Moth caterpillars, now called Spongy Moths out of political correctness, I suppose, and in deference to the sensitivities of the folks who consider themselves "gypsys". We have achieved a modicum of biological control over these defoliating caterpillars, but they still impact our forests through periodic defoliations. We watched the progression of Asian Hemlock wooly adelgids, tiny sap sucking insects, as their numbers swelled and moved northward from their first appearance in Viginia decades ago. These crawling, minute scale insects are unable to fly, but they have hitched rides on the feet and feathers of migratory birds or traveled aloft on hurricane force winds as they did in 1995 to cross over Long Island Sound into southern Connecticut. Dutch elm disease was another fungus of Asian origins now carried by native Elm bark beetles. First identified in Holland, Dutch elm disease decimated the stately street elms of cities and campuses along with elms in the forest. Efforts to treat mature elms with insecticides and fungicides were expensive but offered some hope of success. Thankfully, some naturally selecting blight resistant elms were identified and are now widely propagated for replanting. A more recent pest arrival is a winged bark beetle, again from central Asia. The Emerald Ash Borer or EAB arrived in the 1990's most likely as larval stowaways in wood pallets or packaging from China and began to escape into our ash rich mid-western forests flying eastwards from southeastern Michigan where it had disembarked, so to speak. We are now losing our mature ash trees everywhere and in very short order and any solutions for control are not readily available. The newest of damaging introductions are the microscopic nematodes, or tiny worms, that first appeared in 2012 first in Cleveland. Probably also of Asian origin they have rapidly spread in all directions taking up residence in the leaves of American and European Beech trees here in southern new England by 2019; their spread it seems is facilitated by water and rain, which will make this horrible wet summer

one of the worst for our beech trees. The ecological importance of beech in our forests cannot be overstated, and yet we may lose this valuable shade tolerant understory tree as well. I could go on with other pests and pathologies such as the Asian Long horned beetles, Pear thrips, and the hideous scourge and harlequin-colored markings of the introduced Asian Spotted lantern flies for which we have no controls yet other than if you see one, then squish it on sight.

One of Yale Forest School's more illustrious alumni who is often considered the father of modern ecology authored a great book of essays on the ethical management forests and land titled <u>Sand County Almanac</u>. Dr. Aldo Leopold felt quite strongly that it is our duty and human responsibility to account for all of nature and to ensure that we "take on the oldest task in Human history...to live on a piece of land without spoiling it". Like my father and grandfather, he acquired a rundown old farmstead in the nutrient poor sandy soils and peat lowlands of central Wisconsin and began to restore the native forest trees back onto the landscape to demonstrate just what he preached. My father's admonition to myself and my siblings as his advancing age and decreasing mobility relaxed his hold on the reins, was to "do everything in our power to leave the land better than we found it when we started and to try and keep it all

**together**". He often reminded me that I would be working with a better forest than when he started!

In the years since his passing in 1996, we successfully placed the whole of the Great Mountain Forest under a perpetual Forest Legacy Program conservation easement which is monitored by the USFS and the State of CT. Our mother's fee ownership of the forest was simultaneously transferred into a 501c3 private operating foundation for the purposes of demonstrating the scientific methods of sustainable forest management and sound stewardship. The foundation continues with the education of a new generation of young foresters and other students of the natural world through summer practicums and annual programming. Our overall mission is protecting and enhancing the biodiversity of the forest. At my urging, in order to accomplish our mission to educate about and address the threats of climate change and forest health, our board of directors enrolled the forest in the California Carbon Offset Marketplace, and we sold the existing standing carbon resource (above ground biomass or estimated tonnage in live trees). We also receive annual payments for a calculated amount of annual radial growth that translates into tonnage of carbon sequestered each year. (This wet growing season will have been a good one for that!) The sale of these "forest carbon offset credits" doubled our existing endowment funds under

management, and it has enabled us to maintain onsite forestry staff to manage the forest and conduct our outreach programs. I don't think my father or my grandfather, who both protected and nurtured the regrowth of our forest from the carbon hungry iron smelters of yore, ever imagined being paid substantial sums of money to simply retain more of the now maturing large trees in the forest.

Forestry science is changing rapidly. Quite apart from the valuation of standing timber and sale of logs and lumber of yesteryear, new financial incentives for owners of forestland are now available for what we term "ecosystem services" or the "natural infrastructure" that forests provide. Forests are working for us while we sleep and when we wake. They protect biodiversity and provide critical habitat to local and migratory species alike. They filter the precipitation and groundwater resources that we drink and use daily. Trees intercept and slow storm water runoff to protect us from flooding. They provide recreational therapy which is now proven to help de-stress our daily lives. Japanese corporations even prescribe time spent in forests to their workers under the term Shin rin Yoku, or "forest bathing". When we spend time in a forest, we are literally bathing in the beneficial compounds that trees emit which are known to science as phytoncides. These gaseous compounds have proven physiological benefits when breathed into

our bloodstream. I will list a few here which were referenced on the world wide web.

- **Immune response**: a 2-hour walk in the forest increases Natural killer cell activity that boosts immunity which can last for days
- Anti-inflammatory: common forest terpenes temper inflammation and reduce oxidative stress
- Nervous system: forest air creates a relaxation response and lowers nervous system activity
- Mood enhancing: exposure to forest air reduces cortisol levels and βpinene has antidepressive properties
- Sleep: phytoncides like  $\alpha$ -pinene enhance sleep
- Blood glucose: exposure to VOCs can reduce blood glucose levels

John Muir was not wrong when he advocated we should " Climb the mountains and get their good tidings, Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you and the storms their energy, while cares will drop off like autumn leaves. As age comes on, one source of enjoyment after another is closed, but nature's sources never fail." "Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life."

And last, but far from least in importance, is the ecosystem service that makes all life possible. Photosynthesis! Trees literally breath in air laced with carbon dioxide, cycling other nutrients and water through their vascular tissues and utilizing the electromagnetic energy of the sun's rays on their leaves and needles in order to make complex carbohydrates for their growth and stem strengthening, all the while transmitting their photosynthetic waste products of water vapor and oxygen back into the atmosphere. This is the science of carbon absorption or what climate advocates now call "carbon drawdown". Our forests everywhere are working day and night to sequester what carbon they can in their tissues and bind up any excesses in their roots and below ground reservoirs of fungal networks, soil compounds and other organisms that rarely return that CO2 back to the atmosphere unless disturbed by deforestation, agriculture use, and fire! After our beleaguered oceans (the number one global carbon absorbers) along with their

associated coastal marshlands, mangrove swamps and coral reefs, all of our world's forests from, boreal to temperate to tropical, are the next best way to pull down and store excess carbon from our atmosphere provided their climatic regimes and biomes remain stabilized!!!

John Muir, again, foreshadowed the emerging science and valuation of ecosystem services:

## "When we try to pick out anything by itself, we find it hitched to everything else in the Universe."

Revisiting one of Aldo Leopold's most enduring quotes that haunts me to this day, given my blessings of a good education from my father, and other forest ecologists, goes as follows:

"One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen. An ecologist must either harden her shell and make believe that the consequences of science are none of her business, or she must be the doctor who sees the marks of death in a community that believes itself well and does not want to be told otherwise." "Ecology," Leopold continued, "is the science of biotic communities, and the ecological conscience is therefore the ethics of community life. An ecological conscience is an affair of the mind as well as the heart."

Lines such as these recall what young Mary Hopkins experienced from the back of her pony as she rode through the village and observed unkempt and degraded lands around early Stockbridge. That her community spirited organization should have taken hold as it has and lasted and flourished down through the decades is a powerful affirmation of what Dr. Leopold and other writers and poets before and after have suggested is our ethical duty to both the biotic community of life around us and to the communities within which we live. As Leopold put it, in an unpublished manuscript *"***There are two things that interest me: the relation of people to each other, and the relation of people to land.**"

Community associations, like the model that Laurel Hill Association grew into, and public private partnerships have taken root in cities and towns all across this great land. The hopeful signs are appearing everywhere in direct response to what I believe is our most pressing "clear and present danger", that of our atmosphere warming too fast and the dangers that such warming will usher in. Collective and collaborative communities are stepping up to respond around the world. Renewable energy generation is now the least expensive new form of electrical power that we can harness. Advances in battery storage technology will facilitate the wider deployment of wind and solar. Communities are embracing the concepts of distributed energy systems, embracing micro grids for better resilience and more efficiency of delivery and end use. Community solar projects and solar arrays that also benefit agricultural operations are springing up around the country. Alternative fuels from biological wastes are being developed and people are literally voting to protect forested wildernesses from fossil fuel development, choosing to leave that energy source forever in the ground (as happened most recently in Ecuador). We are sourcing heat exchange directly from the air and tapping into the constancy of geothermal heat which is the most sustainable heat source of all. There is great work yet to be done and little time in which to do it, but communities like yours and others around the world are taking up the challenges. Transportation and work will be changed over time to more sustainable means as we began to see emerge during the recent pandemic and with the advent of efficient electric means of locomotion. The younger generations will continue to press for newer technologies and regenerative lifestyle changes even as they hold us accountable for the ecological wounds and inactions in our past and present. A newer day is dawning at local and state levels around America and communities like Stockbridge and even my little town

of Norfolk can help usher it in. We all began by protecting the forests and trees in our communities and that, it seems, was the best place to start. Letting our forests remain forests should be everyone's main goal the world over.

Margaret French Cressen wrapped up her centennial message by invoking the wise words of Massachusetts' own mother nature's son, Henry David Thoreau. Though he died shortly after the association came into being, his words seemed to presage the existence of a town like Stockbridge whose people saw fit to protect and preserve what beauty is found in its natural surroundings. I, too, would like to close this address by invoking some Thoreauvian wisdom from his long and brilliant essay titled **Walking**. In it, he inspired in me and countless others the great joys found in simply "sauntering" through the wonders of the natural world be they forests, fens or fields. Luckily for Stockbridge residents, such protected areas of the Laurel Hill Association are here in great abundance.

Mr. Thoreau seemed to know early on how interconnected and dependent all life in a community truly is to its natural surroundings, and I dare say Mary Hopkins Goodrich would have agreed. "I wish to speak a word for Nature, for absolute freedom and wildness, as contrasted with a freedom and culture merely civil--to regard man as an inhabitant, or a part and parcel of Nature, rather than a member of society".

. A person's health requires as many acres of meadow to his or her prospect as their farm does loads of muck. A town is saved, not more by the righteous people in it, than by the woods and swamps that surround it. A township where one primitive forest waves above while another primitive forest rots below--such a town is fitted to raise not only corn and potatoes, but poets and philosophers for the coming ages."

Thank You for inviting me to speak.

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