

“In the Country” by Robert Todd – published in the *New Boston Bulletin* in 2001

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A Rewarding Vocation (1/2001)

In the course of conversations amongst friends there is regular discussion about what their lives would be like had they taken another career path. These chats often leave me wondering where I would be and what I would be doing if one of several pursuits I attempted had captured my interest instead of the one I chose. However, it does not take long to reconcile the choice I made and to realize that very few endeavors would have been as satisfying as the discipline that has enthralled me for decades. Land Surveying has endeared me to the land and to land use history.

I have worked on thousands of land parcels, most of which I claimed by affection, of course I never owned them, but each had a unique land form, perhaps a breathtaking view, or a few plants or animals that were exceptional. It has been this affection that has kept me in this field, not the consulting fees that I collected from the real owners. I have often written in this column about my love affair with the land. In some columns I have written about natural history and the history of land use.

A major part of the land surveying practice I carry on is involved with interpreting and re-establishing the work of land surveyors who have probably possessed the same infatuations that have enveloped me. In the mid-eighteenth century land surveyors established the framework for the disposition of land in this and other towns in the area. Since that time this framework has been subdivided and re-subdivided, again and again, to reflect the uses important to man. Through nearly 250 years the land surveyors in this area have facilitated each successive land use. It was their basic understanding of the land and how it was suited for the uses of each generation of owner that guided the etching of land use patterns on the landscape.

With this work comes a deep appreciation for the surveyors that have preceded me. Even though the early surveyors have passed long ago, I have come to know them as good friends, have become accustomed to their habits in marking lines, and have a full understanding of the survey methods they employed. My relationship with surveyors past has also greatly enriched the study of my family history.

During the period from 1740 to about 1940, several members of my ancestral tree engaged surveyors to assist with their land use endeavors. In 1753, Captain Andrew Todd, my grandfather five times removed, along with some 73 partners, hired Mathew Patten of Bedford to lay out and subdivide a township they had been granted. The town was called Todd's Town until 1768 when it was incorporated and the name changed to Henniker.

Mathew Patten was instrumental in facilitating the settlement of New Boston as well. The proprietors of New Boston hired Mathew to lay out the meetinghouse lot in 1763. His journal entry for this engagement on July 11 of that year reads “*I sett out for New Boston to help fix a place for to build their Meeting House on the other Committee man was Capt. Chamberlin and my brother*”. The famous journal notes many other trips to New Boston for the purpose of running lines for the early homesteaders, namely the Gregg, Christie, Moor, and Smith families. I re-measure lots of boundary lines in New Boston that were first measured by Mathew Patten using the crudest of instruments.

Several other surveyors have measured stonewalls and fence lines constituting boundaries of family lands in the neighborhood of Todd’s corner. My great grandfather hired George P. Hadley in 1890 to survey and subdivide lands so that he could convey a portion to my grandfather. Mr. Hadley was a respected leader in Goffstown and is most noteworthy for editing the history of Goffstown, one of the better histories in the state. In my mind he is noteworthy for passing along a heritage of survey work characterized by careful measurement. I retraced the survey he did for my great grandfather and found that his measurements compared well with those determined with the precise instruments we use today. In using George P. Hadley’s field notes in retracing several boundaries, I have developed a deep respect for him.

My grandfather hired Alfred Osborne, a civil engineer/surveyor from Weare, to re-establish some boundary lines on his lands. Mr. Osborne was prominent in the practice of surveying from 1900 until about 1951, a remarkable tenure. Mr. Osborne was responsible for surveying many properties in New Boston and I have retraced his work many times with surprisingly close correlation between our measurements.

William Falconer of Milford surveyed many New Boston properties until his death about 1970. William had the peculiar habit of using pencils as chaining pins (chaining pins are accessories used by surveyors to mark the end points of the measuring tape along the line being measured or laid out). Often he would leave them stuck in the ground. I remember measuring a boundary common to a parcel he had surveyed a year or so before and finding his pencils upright in the ground.

The deceased surveyor that I am most familiar with is Gerald R. Hyde who lived in Bedford. Gerald was a forester and a surveyor. He was on the first board of licensure for land surveyors in this state and was well known for his humorous stories and sharp intellect. I worked for Gerry during my years as a student at UNH and he was an influential mentor of my youth. It was from him that I learned the value of historical research to land surveying. Gerry hurried with his measurements and used the rationalization “that’s close enough” when his surveys did not close. I purchased the Hyde records from Gerry’s widow and have used them many times in re-establishing boundary lines that he put on the ground. Although I often find blunders in his measurements, I have usually been successful in determining his intentions and have resolved the measurement inconsistencies with confidence.

What of the future? Will young people making career choices be “turned on” to the land and the measurement of its characteristics? It seems not to be so by my judgment. The survey practitioners are aging, the median age keeps rising, and only a few young people apply for the license examination each year.

Will the work of future practitioners be as individualistic as it was in the past, so as to be recognizable when encountered in the records or on the ground? I think not. Modern instruments, data collectors, and computer assisted drafting hardware and software have a homogenizing effect upon surveyors’ work. The logos that appear on plans today are the only features that separate one plan from most any other that is made. Standards of practice for the profession tend to make all work look the same.

My perception of the future will certainly unfold in reality. It is indisputably good for society that all plans and measurements are done to the same standard and that they all “look alike”. Land information will thus be more
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consistently reliable. The individualism inherent in the work of past surveyors will give way to universal methods and procedures resulting in a more esteemed profession as a whole.

I cannot predict the effect of the “aging” survey practitioner, nor do I have a solution to the problem. During my career, I have seen several disciplines develop from sciences that had been traditionally practiced by surveyors. These newly licensed disciplines including, wetland scientists, soil scientists, and geologists, seem to have young people entering the ranks, this is in contrast to what I see happening in the surveying discipline. The Geographic Information System (GIS) technology involves measurement and mapping, tasks traditionally in the realm of land surveying. This field also seems to attract plenty of young talent.

My vision of the future is not very clear, but I think I see the land surveyor moving away from firms headed by a sole proprietor with few employees and into large multi-disciplinary firms. The surveyor will find himself on a team of specialized land experts, each with a separate and distinct license to practice in his specialty. Such firms will be equipped with the latest and greatest technology and will seek out well-educated, young personnel.

I am always excited by the task of observing and measuring land and then representing that land on a map and in a report. Then, I am gratified when this information influences a landowner to make a wise land use decision. I sincerely hope that the instructors responsible for training future generations for this vocation will instill in their students an appreciation for the land, its history, and an understanding of the natural processes that occur on it. Without this connection, I fear the surveyor’s voice will only be a whisper in future land use decision making.

The New Boston Cemetery: Acceptance of a Prodigious Legacy (2/2001)

There are organizations in town that provide such important social functions as to be considered quasi-public institutions. One is the New Boston Historical Society that diligently gathers and preserves documents and artifacts relevant to this community’s heritage. A second is the New Boston Artillery Company that literally guards and honorably presents the Molly Stark cannon, this community’s most prized symbol of patriotic legacy. The New Boston 4th of July Association is a third such organization and it stewards the tradition of annual Independence Day celebration that began in the 1920’s. There is another that I believe to be of equal value to our community and I want to tell its story before it may transcend from private to governmental status by ballot vote this March.

Few people realize that the Board of Trustees of the New Boston Cemetery is actually an independent institution that has quietly and compassionately served this community since 1868. The old journal of the Board of Trustees, a book that I have kept during my 27-year tenure as Clerk of the Board, documents the circumstances leading up to the establishment of the Cemetery and its management. Most of my statements come from my review of this second journal, the first having been destroyed by the Great Fire of May 11, 1887.

For several years prior to the establishment of the Board of Trustees in 1868, the Town struggled with meeting the need to enlarge the original burial ground, but no agreement was reached. Elbridge Wason brought to the Town Meeting a thoughtful offer to give land in trust for the purpose of establishing a graveyard benefiting all residents. The trust document that he finessed provided that a Board of Trustees would manage and maintain the New Boston Cemetery for the benefit of the Town. Mr. Wason’s philanthropic proposition was accepted by the Town Meeting in 1868. His vision was deftly incorporated into the trust agreement with provisions normally associated with trust organization. Further, Mr. Wason understood very well that political whims would soon compromise, if not destroy, the value of his gift and he crafted tenets particularly to ensure his vision.

Wason provided that the Board of Trustees would be appointed for life and when any member should resign, die, become incapacitated, or removed by the Selectmen for reason of misconduct, a replacement would be nominated by the remaining members. The nominee must then be ratified by vote at town meeting. In all other respects, however, the Board was autonomous.

In a recent review of the journal I was astonished to find that I am only the sixth clerk to serve the Board of Trustees in the 133 years it has been in existence. However, the length of service of the first clerk, Solomon D. Atwood, humbles my 27 year tenure. His term ran from 1868 until his death in 1916- 48 years! (Solomon was a storekeeper at the corner of Clark Hill Road and Route 136 in the brick building now the residence of Almus Chauncey.) The other clerks included in order of their terms are, Thomas Cochran (1916-1936), Fred H. Prince (1936-1955), Harold A. Todd (1956-1971), George Houghton (1971-1973).

In his Trust Document accepted by the Town, Wason spelled out the Board of Trustees' scope of duties and responsibilities a manner so succinctly, yet so completely, that the document has never been amended. I also find it amazing that Wason's vision was so farsighted as to maintain the fiscal autonomy of the organization until about the last 10 years. Over the years, the Trustees have been successful in funding maintenance of the cemetery with income received from burial lot sales and income from trust funds bequeathed to the Trustees. Only recently have the trust funds diminished to the point that income has not offset the cost of maintaining the cemetery. Consequently, the Town has appropriated funds to ensure adequate care of the cemetery.

The shortfall of trust fund income is the main reason for considering change in cemetery management. During the year 2000 the Board of Trustees and the Selectmen have come to a consensus that the Town of New Boston should take over full responsibility for the cemetery. A secondary reason for the proposed action is state law as administered by the Department of Revenue Administration (DRA). This agency oversees the expenditure of public funds and frowns on town appropriations being used to fund programs that are not totally controlled by the Selectmen.

The need for providing new burial ground is also driving the change. It is evident that the present cemetery has only about 10 burial lots left for sale. The need to prepare new ground is imminent and the Town will be faced with a significant appropriation for this purpose. The Capital Improvement Program (CIP) has taken this fact into consideration and has scheduled the proposed expansion cost for tentative budgeting in 2006. CIP has tentatively scheduled initiation of a capital reserve fund of \$25,000 per year beginning in 2002. The Board of Trustees saw this expenditure as being way beyond its means. However, the Board had the foresight to set in motion a plan to meet the need.

In 1975, Roger B. Webber gave 1.96 acres of land south of the existing Cemetery to the Trustees for the purpose of enlarging the grounds. A design of the layout to be employed on the land gifted by Webber shows potential for 596 gravesites. This addition will provide capacity for an estimated 20 to 50 years. The development of this addition must be completed during 2006 to sustain availability of burial lots for sale. The costs of this project to date including; surveying, subdivision, soil testing, and designing a proposed lot layout were borne by the Board of Trustees.

Since 1975, the Selectmen, particularly through efforts of the Highway Department, facilitated placement of a significant amount of fill on the landscape of the "Webber gift lot". This is necessary because of the very shallow to bedrock soil condition on the property. Much more fill must be placed there to ensure adequate depth for burials. This costly project can be greatly reduced through purchase of the Sherburne lot by the Town. This property contains a relatively inexpensive source of sand. (The purchase of the Sherburne lot will also be a ballot issue this year for voters to decide.)

Under Town management there will be changes. The management will be under the authority of the enabling statute that provides for a three-member board called Cemetery Trustees. The newly elected Trustees will have the power to appoint a custodian, or sexton, who will have the responsibility to supervise all the work done at the cemetery. The members will be elected for a term of three years. The cemetery maintenance budget will be negotiated in a manner consistent with all other town agency budgets. This committee will carry out all the duties prescribed by the law and may need to take on the responsibility of recording interments, selling lots, and supervision of vendors engaged to prepare and close gravesites and to install monuments. These particular functions have to this date been delegated to the superintendent.

A great concern held by the current Board of Trustees is relative to the position of Superintendent. Townsfolk should be aware of the selfless, caring, and timely services provided by one local family, for longer than I can remember, in the care of the cemetery. This is the Mansfield family. I am not certain that the wonderful relationship existing between this family and the Board of Trustees will survive the bruising that is bound to occur in the transition to the new regime.

I do sincerely hope that the voting public will appreciate the fact that the past management of the cemetery has resulted in very little town expenditures compared with other town cemeteries. I believe this is due to the lifelong dedication of very few people and especially the keen foresight of Elbridge Wason. Can the Town management match the Trustees' performance in the area of continuity and low overhead? I think not! Consider also that the Town is inheriting a large sum of trust fund money- a windfall that may continue to significantly offset cemetery maintenance costs.

At the very least, let the traditions and legacy of the old New Boston Board of Cemetery Trustees be an inspiration to those that choose to stand for election to the new Cemetery Trustees. When at the polls to cast your vote on this issue, please be thankful and respectful for the foresight of Elbridge Wason, the designer of the Trust that, without a flaw, served this Town for 133 years. The question of how well our beautiful and historic New Boston Cemetery will be maintained in the future compared with the way it has been in the past will wait for an answer.

A WELCOME FEELING (3/2001)

As I prepare to write this article, my inner self has deep conflicting feelings sparring to control my actions. I reflect on recent pleasing experiences in the field. Just yesterday I stood resting at the edge of a wood, the air was cold and the light breeze chilled my flesh. In contrast the sun's warmth absorbed by my dark parka was felt deep in my chest, stirring my emotion. Would I now rather sit and write my thoughts about the affect of the coming season on the human spirit, or should I go out and take another dose of yesterday's experience?

Each morning I look at the calendar and the date cues me that I should be seeing beginnings of seasonal change. For weeks seed catalogs by the dozen have also been received in the mail. These visual cues are not as exciting as the feelings brought on by my observations of the natural world. Each day is noticeably longer; the sun is much higher and warmer than even last week. During the day, shadow's are now shorter and the forest lighter. In step with apparent worldly changes I observe, there is a deep emotional change within me. This feeling is, I believe, an instinctive reaction to the sun's warmth and the greater abundance of light each day. Could it be a residual of the same instinct to which animals respond when the season changes from winter dormancy to spring renewal? These thoughts tugged at me to take a hike in the forest. However, the urge to write my feelings have thrust aside the motivation to go and face the wind and feel the sun- I can do that on Monday while reconnoitering that new job.

My wife feels a stronger mood change at the outset of spring than do I. For her the dark, short days of winter bring on a state of mild depression and anxiety, springtime reverses the symptom. Some say that sitting in an artificial light source of prescribed wavelength counteracts the symptoms resulting from deprivation of sunlight. Consequently, one of these “mood changing” lights is installed in the kitchen. Perhaps it helps.

It is now February 17 and any day there will be a “loud” seasonal response from the sugar maple tree. These “shouts” will be a signal heard by many of my friends and neighbors to begin preparation for syrup making. The sugar maples have been dormant for a long time and they feel the same warmth under their bark that I feel under my vest. I am sorry that the trees cannot turn around and warm their cool sides the way I turn toward the south and warm my backside.

This warmth of late winter days and the freezing nights bring a great hunger to the growth systems of all trees. Starch, an energy storage compound for all plants, begins to move in the form of sucrose from specialized cells in the roots, trunk, and branches of the great sugar maple. The hunger, felt first in buds at the tips of branches, triggers transpiration in growth cells. The growing cells use sugar in the sap as food. This consumption of sugar lowers the concentration of it in the sap solution and the “pump” is primed. Sugar in the sap moves from solutions of higher concentration to solutions of lower concentration and is thus trans-located from storage cells through the tree’s transport system (xylem) to the buds.

The sap in the maple’s plumbing system can reach a sucrose concentration of 2 to 3%. The higher the sugar concentration, the less sap has to be boiled to make syrup. Genetics and tree health are factors that combine to influence the sugar concentration in the sap. A tree that has been attacked by insects, or has been injured or become diseased during the growing season will not have the starch reserves to provide a high concentration of sugar in the sap flow during the following spring.

The Native Americans of this region were the first to harvest maple sap and to make syrup. These early inhabitants cut sections of bark away from the tree and captured the sap flow in folded and sewn birch bark containers. The sap was poured into a log that had been cut to form a trough. Stones heated in a fire were placed repeatedly in the trough of sap until it was reduced to syrup. The maple syrup maker of today has the advantage of modern technology, but it is still hard work with success dependent upon the capricious New Hampshire weather. I believe it is a desire to be in touch with Nature and to be mystified by the process, rather than the lure of financial return, that drives two local families to the annual endeavor. I recommend a trip to the Dane Family sugarhouse on Pine Echo Road to hear one of a hundred local “yarns” that are sure to be retold in the sugarhouse and to gain an appreciation for this age-old ritual. I am sure that Patty and Dennis Kilar would welcome visitors to their sugarhouse at Colonial Acres Farm on Route 136. The greatest reward would be to return home with a jug of the end product.

Soon after the first warm feelings that stimulate my tree associates and I there are other harbingers that shake the remnants of long held melancholy from my spirit. There are frequent, sweet musky odors that waft through the woodland air in late February and early March. Each spring I experience this signal in the deep forest, especially along streams and marshy areas. This distinctive strong scent heralds the beginning of a new cycle of life for the mink. I rarely see these elusive water loving animals, but their intentions are made known by their scent, like the ringing of a bell, during their early breeding season.

For me, the greatest bell ringer is the wood frog. This hardy creature appears from out of some unseen hibernaculum in the forest responding to some unknown call to take up a charted course to find a mate. During early March evenings I have seen dozens of these frogs crossing the road in front of my vehicle. Many never reach the other side of the highway. While granular snow, resisting transformation to liquid, remains on the ground and ice patches cover most of the vernal pools, these earliest of breeding amphibians mate and lay eggs

in gelatinous masses, usually attached to submerged twigs around the pool edges. During my daylight passing by the breeding pools, I hear the males' call that is strikingly similar to the quacking of a duck.

I am always amazed by the wildly prolific behavior of wood frogs. They arise from deep hibernation, travel quickly to a favorite vernal pool, quack up an audience of females, and mate- all within three to four days. When scientists discover what chemical compound drives the wood frogs' karma they will have something more powerful than Viagra.

The spring peepers attend to their mating rituals in this time period, or perhaps a little later. My socially handicapped ears do not hear the high-pitched chorus of these amphibians. Therefore, they do not impart the same feelings to my inner self as do the low-pitched wood frog vocals that I hear clearly. Other people are more affected by the spring peepers because the continuous chorus can generally be heard from a greater distance than the quack of a wood frog.

My mood always becomes sanguine by the changes that occur soon after feeling the new warmth of the spring sun upon my chest. This feeling prevails even in the midst of a frigid wind that penetrates the seams of my parka to steal my comfort. A month ago this same wind would have made me gloomy, now my thoughts of it are cast aside and I am happy. I gain new hope and inspiration from a natural world that has complex, mysterious life cycles that go on in step with the heightened angle of the sun each day. This can happen to you. Take walks in the woods this month and feel the magic.

BAILEY POND AND OTHER PUBLIC WATERS (4/2001)

Sequestered serenely in the center of town, just south of the village is one of six ponds within New Boston's boundaries that belong to the public, you and me. This pond has a place on the landscape that, in my eyes, sets it apart from the others. Throughout my lifetime and within the remembrance of other New Boston natives, this pond has been the "place" of weird, and tragic events that are the grist of legends. Some may now have guessed that I speak of Bailey Pond. In this short column I want to chronicle this pond and the other public waters in Town.

My focus on Bailey Pond, in early town records known as Cochran Pond, happened while engaged in a boundary survey of a property surrounding a portion of this placid pond. As part of my research I studied my reference on public waters ["Official List of Public Waters in New Hampshire", NH Department of Environmental Services (NHDES), January 1994] and found Bailey Pond on the list. I was surprised to find 5 other water bodies on the list, none of which were part of my consciousness as public waters. These included: Dennison Pond, Still Pond, Beaver Dam Pond, Dodge Pond, and Beard Pond.

The 732 ponds listed by the Department of Environmental Services are designated "Great Ponds". The disposition of these waters is under the control of the State Legislature and the submerged lands are owned by the State, not the owners of adjoining upland parcels. The upland owners' rights join the public rights at the natural high-water mark. I am intrigued by the origin of this notion of public ownership of water bodies. In reading the Town Charter of 1763 I find no reservation of water bodies by the Provincial Government. I wonder then, how did the State get to own the waters?

I thumbed across some notes taken at a Water Law seminar I attended in 1995 that answered my question. My notes summarized a Supreme Court decision in 1842 stating that when the colonists won the Revolutionary War the people became sovereign and in that character became the sole owners of all the navigable waters and the soils under them for their own common use and benefit. This became known as the Public Trust Doctrine. When each state entered the union the state governments became stewards of the public

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trust of navigable waters. Accordingly, our Legislature, early in our history, made laws defining what waters were under the Public Trust. Eventually, the Legislature passed laws that brought all natural water bodies over 10 acres in surface area under its jurisdiction.

In my work on the property survey I mentioned, I discovered that the road into Bailey Pond was laid out by the NHDOT on October 1, 1962. The maintenance responsibility, however, was delegated to the Town of New Boston and it has been maintained as a Class V highway even though the State owns the 50' wide strip over which the roadway runs from Joe English Road to the shore of the pond. The initiative bringing the State to lay out the highway reflects back to the usual cast of local volunteers that have so many other community projects to their credit. However, Raymond Barss and Harold "Bo" Strong are the only two signers of the petition to the State causing the action that are still around and still active in our community. Bailey Pond is unique among our Great Ponds in that it is the only one with public highway access. Therefore, general use of the other Great Ponds is limited.

John Conley and Harland "Brownie" Brown, two special citizens of this Town, now deceased, were the owners of the land surrounding Bailey Pond at the time the highway was constructed. These men saw the need for additional public land at the end of the new road for use as a place to swim. To meet that need John and Brownie gave a parcel of land to the Town with the proviso that use of the land be limited to the hours of 9 A.M. to 8 P.M. and that in the event the property fell into disuse, then it would revert to the original owners. However, due to the mucky bottom, the swimming area has never been very popular, although I believe Corky Trimbur taught swimming lessons there for several summers.

Like a pat of butter in a basket of rolls, our treasured Bailey Pond is peculiarly set in a valley surrounded by five dome shaped hills of at least 800 feet and up to 900 feet in elevation. Two of the hills wear place names significant in our culture. One is the Meetinghouse Hill bounding the pond on the northeast and the second is Hooper Hill encompassing on the northwest. The dome overlooking the pond on the east is the site of a residential tract tastefully developed by the Kennedy Brothers. From an elevation advantage of about 200 feet above the water, most of the homes in this development are afforded a peek at the sublime setting of this pond. This forms an exquisite middle ground in the panoramic vista seen from the development. The other two "rolls" in the basket are hills on Marvell's Sunset Tree Farm, surrounding the pond on the south.

The outlet from this water body runs through the remains of a beautiful ancient milldam (it was described as an old dam in a deed dated 1850) and into a small stream that runs to a confluence with the Piscataquog River. Even though the old dam may still control the high water level of the pond, it has been in place so long as to be considered as "natural" for purposes of Great Pond classification. There is no significant inlet to the pond, a fact that leads me to believe that it is filled predominantly by ground water discharge and runoff from the five hills.

My earliest awareness of Bailey Pond is associated with a tragedy that ended the life of one of New Boston's most promising young citizens. This was a young man, two years older than I in June of 1955, who accidentally drowned in those waters. I (one of many of that era) looked up to Richard Whipple with great admiration and idolization. His athletic abilities were outstanding and at the age of 17 was already a motivational leader and role model. I will never see Bailey Pond without feeling the negative part of the history surrounding it.

Tom Mansfield (the younger) told me that he has enjoyed fishing the pond since he was a kid, taking perch and bass through the ice as well as from a boat. He says that horned pout were more plentiful in the waters when he was a kid than they are now. He went on to relate some sketchy details about how his dad and another local figure helped a woman that was disoriented at the beach area. This would not be so noteworthy

had it not been for the delicate circumstances of the occasion. It seems that through her state of derangement she had divested herself of all her clothing.

Another acquaintance of mine quipped another incident involving a resident that drove his Land Rover on the pond one winter day and was unpleasantly surprised when it went through the ice. It took great effort on the part of a wrecker operator to extract the vehicle.

It is important for local government and landowners to realize that all six of the above mentioned Great Ponds are protected by legislation called the Shoreland Protection Act. This law has provisions prohibiting certain land uses within 250 feet of the natural high water mark. It also regulates the cutting of trees within 150 feet and limits the placement of structures to sites further than 50 feet from the natural high water mark.

Bailey Pond and the other five Great Ponds are part of our natural heritage that exists as hidden treasure. However, we are privileged by their presence. It is quite likely that these public waters will, with proper planning and some investment, become a more important part of the recreational infrastructure of our community. Let us keep these resources in mind and not forget their importance to the well being of the community. Further, let us give them full accord in our land use regulations and in tax assessment (owners of land adjacent have typically been paying taxes on the submerged lands).

The Only Latin I Know: Plant Names (5/2001)

I grew up on a small farm and spent most of my time in the presence of a grandfather and father who, during their daily work, patiently answered constant questioning about the names of the many trees, shrubs, and weeds that attracted me for some unknown reason. Both Gramp and Dad had long experience working the land and in using plants for their livelihood. My grandfather operated a portable, steam-powered sawmill throughout the first quarter of the twentieth century. In this business, he had to know the common names of all the trees so that he could purchase timber from landowners and market the lumber to buyers. It was important that he use accurate plant names accepted in commerce; otherwise he would have been at an economic disadvantage. Prices throughout industry varied markedly from one species to the next. The same situation exists today.

When he was a teenager, my Dad also worked in the mill business with Gramp and learned practical lessons on tree identification. Beyond his lessons in the forest, Dad studied agriculture and plant science at UNH and after graduation he operated a small dairy farm and raised animal feed and vegetable crops. In this experience and training he acquired a great working knowledge of plant names. He seemed always able to answer my questions on plant identification. Grass species vary considerably in protein content and in growth capability on different soil conditions. They also have seasonal differences relative to their maturation- the growth stage providing maximum feed value. Dad's knowledge of plants and the identification of the species he raised was an essential skill in managing the farm. This principle has not changed.

The lessons, passed on to me by my elders on the farm, about the importance of plants and the identification of plants programmed my consciousness for the education and career path that I followed. However, the knowledge about plant identification I gained on the farm was much different from what I learned in college. Gramp and Dad used common names of plants and I later learned that common names used in New Boston are much different from those used in other areas to identify plants of the same species. An example of one species' common name that I remember challenging my dendrology professor about was "white maple". This was the name that my father used to identify a tree my professor called red maple. I learned that this ubiquitous tree is also frequently called swamp maple. Professor Jenkins pointed out that my confusion illustrated the unavoidable conflict in use of common names to discuss various plants. In college, I quickly accepted the notion that the universal use of scientific names was absolutely essential to the study of botany and

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to the practical application of plant science in vocations that include; forestry, agriculture, herbal medicine, landscape architecture, wood technology, horticulture, wildlife biology, ecology, pharmacology, and perhaps many others that I fail to recall.

My enlightenment about the need for scientific plant names came easy. Learning the binomials and the taxonomy for all the plants my professors wanted me to know was extremely difficult. My good old NBHS curriculum did not include language options other than French 1. All scientific plant names are Latin, or Greek and I was immediately faced with spelling and pronunciation challenges that I was not prepared for. I studied for the constant dendrology quizzes by memorization, hours upon hours of memorization. How I envied my classmates that had studied Latin in high school and had an understanding of the root meanings of the Latin terms used in the scientific names. For them it seemed much easier.

My resolve in learning the scientific names stemmed from understanding the importance of the knowledge to my future work. It is meaningful because all the botanical reference materials and all discussions among plant scientists worldwide, in addition to all plant material commerce, are in terms of Latin names. This convention started in the 16th and 17th centuries when Latin was a common language. Most of the plants we are familiar with today were discovered and named by scientists of that era. As it turned out, Latin is not now used in conversation, a fact that makes it unchanging and most appropriate for this use.

Any language that is used in the vernacular is subject to change, leading to confusion in discussions about plants over time. In his book “Human Natures”, Paul Ehrlich states that a language loses about 20% of the words in its’ vocabulary in a millennium. I understand this more now that I have much life experience to reflect on the changes in our vernacular. Examples include the words “geek” and “nerd” that did not exist when I was in college. The word “cool” has an added meaning today. I read words in old deeds and wills (1700’s era) that are not used today. The words “ye”, “pleaseth”, and “fortnight” are some of the words seen in many old documents; none are in our vernacular 250 years after they were written.

The process of plant naming is highly structured and must comply with the precise rules in the International Code of Nomenclature. The American Institute of Horticultural Nomenclature is a national committee of scientists that has the mission of evaluating scientific names according to the universal rules and standards. This task is ongoing because many new plant varieties and cultivars are propagated yearly.

People who have familiarity with plants, I believe, have an intuitive understanding of the convention used in assigning names to plants. The first part of the binomial is the genus (plural, “genera”); the second is the species (plural, “species”). Often there is a third part that is the abbreviation of the name of the botanist who is responsible for naming the plant. Where varieties of plants have been developed the scientific name is followed by “var.” and the name of the variety plus the name of the authority responsible for propagating the variety (Dictionary of Plant Names, Allen J. Coombes, p.vii). The nomenclature of hybrids and cultivars is complicated and I will not delve into this.

The genus name is treated as a noun and it has a gender. Names of species are treated as an adjective and must follow the rules of Latin grammar, rules that only students of Latin will understand. Generally, the scientific name is related to people, places, habitat, plant characteristics and habits, and the uses for the plant. Often the accepted scientific names are the ancient common names in use when Latin was the spoken language (The Intrigue of Plant Names, Ethan Johnson and Kathy Aleric, in *Arboretum Leaves*, Winter 2001, The Holden Arboretum).

White Pine, one of our most common trees in the forest has been named for scientific purposes, Pinus strobus.

The Dictionary of Plant Names (Coombes) lists Pinus as the ancient common name for evergreen conifers. The Dictionary describes strobis as being derived from the Latin word meaning a gum-yielding tree. Our common Red oak, Quercus rubra, has its root in the Latin ancient common name for the Oak tree. Rubra means red in Latin. Coombes says the “red” name for the species is related to the autumn color. I think that it may also relate to the red color seen in the fissures between the broad plates of the bark. One of my favorite wetland plants has the common name turtlehead. The scientific name is Chelone glabra. Referring to Coombes again, I learn that Chelone is from Greek and means turtle. The flower of this plant is unmistakably shaped like a turtle’s head. The species name, glabra, is Latin for “without hairs or projections and with a non-waxy, non-sticky surface”. Glabra is a one-word description of the leaves of this plant.

My purpose here has been to generate awareness of the story behind naming plants and to foster appreciation for the seemingly absurd name that appears on tags attached to those nursery plants that you will be purchasing this spring to beautify your landscape. For those that may be stirred to informally study botany, I suggest obtaining a good dictionary of plant names and becoming familiar with the meaning of Latin names. My method of learning scientific plant names has changed during my career. Initially, I memorized the Latin terms, then meaningless to me, and I tacked these terms on to the common names more familiar to me. Now, I learn the meaning of the Latin terms and associate these with characteristics of the plant, and then I learn the common name. This method seems much easier and more enjoyable. My love of trees has also led me, inadvertently, to appreciate the Greek and Roman cultures and to respect Adonis, the Greek God of Vegetation.

The Freckles on New Boston’s Face (07/2001)

It could be more than a year ago that in this column I gave a synopsis of how the features on our landscape may have been formed by the glaciers (“The Face of New Boston”). This is somewhat of a continuation of that article to discuss some “freckles” that I overlooked in the first column.

The “freckles” I refer to are very unusual wetlands that attract me the same way that a lead story in National Geographic piques my interest. Every time I am in the vicinity of one of these features, I will leave my duties and spend time there observing the plants, insects, and bird life that I do not see on a regular basis at other wetlands. The physical characteristics of these special wetlands are responsible for the existence of unique plant and animal communities that are a sideshow in Nature’s circus.

Recently, I visited one of these places and had a transcendental moment. I imagined myself sitting in that same location during the epochs that passed from the time the wetland was formed until natural succession of the forest “morphed” the wetland to the rare place it is today. Of course this transition took about 10,000 years, but in my imagination the story unfolded in about 15 minutes.

My mind traveled back to the end of the glacial period and I could see the landscape surrounding this place, quite barren and scoured by the glacier. Ice fingers still remained in the valley that was the precursor to the Piscataquog River valley. At this very place I see a huge block of ice, perhaps three times the size of the town hall, isolated, and melting in the surrounding couch of soft sand that has recently washed there in vast streams flowing from the margin of the glacier now retreating as the climate becomes more temperate.

The sand and gravel around me is deposited in steep sided eskers and kames and there are only scattered spruce and aspen seedlings amongst the sparse plant life that includes only lichens, mosses, herbs and shrubs. As time passes in my thoughts the huge ice block melts leaving a deep depression in the sand and gravel. The melt water in the depression merges with the ground water and the level fluctuates in harmony with the level of the unseen water table. I can understand why this peculiar landform is commonly referred to as a “kettle hole”. The sand and gravel that washed around the ice block slowly sloughs in around the kettle hole and I notice that

there is no inlet or outlet stream, a feature that will play a key role in the route this wetland will take through evolution.

A millennium or more passes in my imagination and I notice that a new forest surrounds me; white pine, jack pine, and hemlock, are prevalent. However, I notice that the organic matter that fell on the kettle hole during the many centuries that passed was not decaying. The twigs and logs that fell into the kettle hole formed a substrate for growth of moss, lichen and even trees so that a floating mat of organic matter resulted. I have been told that the very high acid concentration in the water preserves the organic matter in the mat that today resembles a trampoline. Decomposer organisms do not thrive in an acid solution. Only a narrow band of open water extends around the perimeter of the kettle hole, just enough to discourage my urge to jump onto the mat from the dry ground. I have walked on mats at other similar wetlands and experienced the sensation of the trampoline effect by bending my knees and then forcefully extending my legs. Bogs and kettle holes that have floating mats are aptly termed “quaking bogs”.

The mat surface and the water itself have a very low concentration of the nutrients that support plant growth. The spruce trees I see on the mat today are only about 3 to 4 inches in diameter and about 10 feet tall, but I reason that they could be a couple hundred years old. I am amazed by the thought that these trees could be the direct descendants of those that formed the first forest on the landscape following the glacier melt. Maybe generations of these relict spruces have been able to persist on this mat for at least 10,000 years. These spruces and the other plant species, including the insect trapping pitcher plant and sundew, plus other uncommon species unfamiliar to me, have adapted to this special habitat and persist as a window to the ecological past. Perhaps there are birds and insect species that depend on this particular habitat to complete their life cycle.

The plants growing on the mat are not in any way similar to the plants I see growing in the forest around me now. The forest has succeeded from the original spruce dominated boreal forest to a mixed pine and red oak forest. The American chestnut entered the forest some 2000 years ago and has disappeared from the forest during the last 50 years due to chestnut blight. In contrast, it is highly likely that the plant community in the kettle hole is basically the same as it was about 10,000 years ago.

The kettle hole at which I recently experienced “time travel” is one of only a few such “freckles” that I know of in New Boston. It is classified as a bog in the state statutes regulating the use of wetlands. As a bog it is given the highest level of protection because of the unique habitat it contains and due to the sensitivity it has to disturbances. The direct connection between the water in the wetland and the groundwater (aquifer) poses a potential risk for water quality degradation. Any contaminant such as petroleum products, fertilizers, and pesticides that may spill into the drainage basin could pass directly and swiftly into the aquifer. The relatively speedy movement of groundwater in the aquifer could bring the contaminants to water supply wells in the vicinity. Cleaning a polluted aquifer takes a lot of time and costs millions of dollars. In New Boston, kettle holes and other bog type wetlands are given no special protection under the current land use regulations.

The kettle hole wetlands should be identified and their locations mapped; then they should be afforded some protection to include the requirement that a buffer be maintained around them in which no disturbance should be allowed. I believe the observation of this geological phenomenon by students would lead to a better understanding of natural history and ecology. Perhaps arrangements could be made with landowners to allow student field trips to one or more of these mystical places. Further, it is important that these wetlands be recognized for their inherent ecological and aesthetic values as well as for the natural legacy they represent.

New Boston Boys in the Gold Rush (8/2001)

In 1963 I moved into the family homestead at Todd's Corner and set up housekeeping amongst the furnishings and memorabilia left by the preceding four generations of my family. It was only through rummaging through the family memorabilia that I discovered that my great grandfather and several of his friends and relatives had participated in a great adventure. While cleaning a closet I found a bag with a gold nugget and several medicine vials filled with gold dust. Further "cleaning" uncovered a watercolor rendering of a placer mining site on which was written "Mining Claim, J.P. Todd and Co., Sonora California, 1850." Later I found a straight razor in new condition and still in the wooden box. On the blade there is an etching of a mining scene and the words "Gold at the Diggings, California". My most treasured find is a letter written by James P. to his family dated January 4, 1851 with a return address of Sonora.

In 1981, I had the occasion to visit San Francisco and purposely extended my stay two days so that I might visit Sonora and do research of land records so that I might learn more about the adventure. I spent most of the day there before a helpful clerk told me that if I was interested in mining records, then I should go to the Columbia State Park, it was only three miles away. I rushed to the park and was amazed to see how the State of California had restored the old mining town of Columbia, but I was not able to go through all of the records there because I ran out of time. I returned again in 1996 and learned a lot. Most of what I have to share with you comes from sources at this wonderful state park.

Several circumstances set the stage for the adventure. On the local scene in 1850, James Todd operated the family farm at Todd's Corner. David Gregg was married to my great grand aunt Harriet and had four children at the family home and sawmill at the place still known as Gregg's Mill. John Cochran and Aaron Loring, two other young men that I have come to know from my research, were also in family farming. John lived where Dan MacDonald now lives and Aaron lived in the last house on Clark Hill Road before the Frankestown line.

On the national level, the Mexican-American War ended on February 2, 1848. Six weeks after the Treaty was signed, public announcement was made that James Marshall discovered gold at Sutter's Mill. This discovery did not arouse the populace until after President Polk mentioned it in his address to the Congress in December of 1848. Soon thereafter, the popular press was quick to spread the word over the entire eastern portion of the United States. The steamboat had become a viable mode of oceanic travel as of 1847 and entrepreneurs were quick to promote "quick" passage to California.

James P. Todd was 28 years old and David was 34 when they departed for California in the spring of 1850. Aaron Loring was the youngest of the company at 22. The other members of the company, eight in all, were about the same age. I know only the other men by name; they are Curtis Perry, John Hathaway, Ferson, and Runnells (first names of the last two are not known by me).

The company left Boston harbor on the steamship Cherokee and landed at Chagres on the Isthmus of Panama. Native guides escorted them across the isthmus. On the west coast the company anxiously waited to book passage to San Francisco. I can only imagine the frustration experienced by David and James and their partners while there. The risk of cholera infection and looting was, if not life threatening, at least fearsome. Finally, they were able to embark on a clipper ship called Tennessee and they sailed to the port of San Francisco. The New Boston party was among the estimated 38,000 that chose the sea route of travel while another 42,000 chose to trek overland.

The New Boston men must have been awed at what they saw on arrival in the bay. Fully half of the ships that entered the harbor never left again because the crews deserted. By 1850 there were an estimated 300-deserted vessels rotting in the harbor. The waterfront was a jumble of barrels, boxes, crates, and salvaged ship

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timbers that were being hastily converted into buildings. The population was an unstable mass of about 30,000 transients and residents alike intensely transforming the city as if by magic. It was in this confused state of affairs that everyone had to obtain gear, plan, and arrange land passage to their destination.

Perhaps it was news published in The San Francisco Daily Herald that influenced the New Boston men to mark their destination. The travel from San Francisco to the diggings was easier than I might have expected. Typically, miners traveled by river barge up the Sacramento River to Stockton. From there, they walked a well-marked trail about 70 miles to Sonora, and then about 4 miles to what is now Columbia. At the time the company arrived there were approximately 6000 miners already there.

I could not find much direct evidence of the return trip. A paper on the Gregg family provided to me states that David returned by boat, crossing at Nicaragua. I have to assume that Runnells accompanied David and James on the trip home. I have evidence that the remainder of the party stayed for extended periods. John Cochran took up butchering in Sonora; John Hathaway tried gambling and horse-trading in Nevada. Aaron Luring died there in 1854.

Prior to the establishment of Sonora County government, the miners formed their own governing bodies and adopted laws. The miners organized the Columbia Mining District in 1850. All miners had to register their claims with the district authority and to abide by the mining rules. Chosen committeemen arbitrated any disputes over the mining claims. There was also a system for trying cases before a jury. Administration of purchase and sale of mining claims was accomplished by the Columbia Mining District.

Miners organized themselves in companies or in partnerships; they worked together, lived together, and divided the gold equally among the partners. They lived in tents and in crude cabins right next to their claims. Generally, they hired helpers, mostly Mexicans. The Foreign Miners Tax of 1850 was imposed on all non-American or white European miners in the amount of \$20 per month. This tax had discouraged most minority miners and all those not choosing to work for the Americans left the area.

The daily work of the miners was hot and tedious. The site of the work was usually along a gulch, what we would call a drainage channel or valley. When a stream was flowing in the gulch, work was expedited and the men erected long-toms along the gulch to catch all the flow they could. Then they shoveled gravel from the terraces along the gulch into the long-toms, which were constructed of planks to form troughs about 2 feet wide and sixteen feet long. These were placed end to end for the entire length of the claim. Water washed the silt and sand along the length of the trough system to the last long-tom where it re-entered the stream. Heavy gold nuggets would drop out of the flow in the first long-tom and the lightest flakes of gold called "dust" stayed in the last long tom. Such is the nature of placer mining in times of rainfall.

The summer and fall season in the Sierra Nevada range is extremely dry and stream flow stops. The New Boston Company was very fortunate however. The miners' records on file at the Columbia State Park show that the New England Water Company was established in 1850 and had its origin at a spring discovered in the claim held by Todd, Gregg and company on Matelot Gulch. The company built a system of wooden flumes to transport water from the spring to other placer mining companies close by. Typically water was sold from springs at the rate of 10 cents a bucket or \$6.00 per long-tom per day. I found records in the Sonora County Court House showing conveyances of 1/8 interest in the water company by members of the mining company from New Boston. J. R. Cochran, Aaron Loring, John Hathaway, and Curtis Perry sold their interests for \$500 each. I would guess that the interests of the other four partners had been disposed of before the county government became established.

I was surprised and thrilled to learn from reading the records at Columbia State Park that the New Boston men left such a lasting mark on the community. The New England Water Company stayed in business
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under that name until about 1900. I wonder; did the New Boston Company make as much money selling water as they did in gold mining?

The Care and Feeding of a Compost Pile (9/2001)

I have great fun and gain much benefit from a project that has been ongoing at my garden for many years. This project is my compost pile. By experimentation I have learned how to manage the project so as to get the most out of it for the least input. I finally feel I should share my experiences with others. You may consider this subject trivial and my time in writing this so much dilly-dallying. However, by describing the process and explaining some of the benefits of composting, I hope to convince at least a few of my readers to take up this hobby.

First, a definition of compost is necessary to establish a basis for understanding what this is all about. My definition is a short form of one normally found in agricultural textbooks. Compost is a partially decomposed mixture of organic materials of plant origin used as fertilizer and as soil amendment. My definition purposely omits organic matter of animal origin because I am not advocating the use of this in the composting process. Most homeowners would not be happy with the consequences of composting materials of animal origin (meat scraps). Green plant materials put into the pile are not compost. Compost is the end product and has a fluffy, soft moist feel and has an earthy odor. The aroma of compost is particularly pleasing to me. I guess this is because I know that when compost has this aroma it is done right and is ready to be used on my garden. Sometimes the finished compost is called humus.

There are a few basics of composting science that one must grasp before heaping up all that green yard and garden waste. Then, a few seasons of practice will bring some success. It is obvious to me that there are as many ways to compost as there are compost materials. Full details of the science can be acquired by reading a good text on the subject such as The Complete Book of Composting by J.I. Rodale, Rodale Books, Inc. I will only be able to touch on the subject in this column.

The placement of the compost pile is important. There should be enough area; generally three times as much space as the size of the pile itself. This provides area to turn the pile and to work around it. It should be in the sun because heat is necessary to energize the decomposer organisms that break down the organic materials. The soil should be well drained and slightly sloping so that runoff and snowmelt will not puddle near the pile. Since some neighbors may object, mostly through lack of understanding, I suggest placing the pile out of site from the nearest dwelling. In direct contrast to my recommendation, I have sited my pile near the garden in full view of neighbors and passers by. No one has yet complained. My pile location may be acceptable at Todd's Corner, but one on Louise LeClair's front lawn in the village would likely draw criticism.

There are a few preconceived negative notions about compost piles. The complaint I hear the most is that they stink. Another one I hear is that they attract undesirable characters, of course I refer to rats, insects, and skunks. I can say from experience that a compost pile made from green plant material and then properly maintained will not stink. I have never seen evidence that rats and mice, or skunks have visited my compost pile. I do have visits from crows in the spring. One year I had a family of garter snakes living in the pile. I was pleased to see them and to know I was providing them with habitat. Some of my readers may not share my pleasures in this regard.

My preference is to use an unconfined pile because I can see it, touch it, smell it, and manage it better than one that is in a container, or in a three-sided bin. The process is the same in all styles of confinement and there are circumstances where one container type or another would be better than my preferred open pile method.

Scientifically, there is a formula for mixing materials for best composting results. This is too sophisticated for me. I rely on the temperature of the material, the smell of it, and the moisture content to guide my mixing and the management of the pile. Your own experience will soon develop into the same intuitive skill. Nitrogen is the building block of the composting process. Carbon is the energy source. All green plant material and household vegetable scraps contain these elements in varying proportions. The trick is to mix the materials so that the carbon to nitrogen ratio is 30:1; the moisture content is 50% (not saturated), and the oxygen level is at about 15%. The decomposer organisms; bacteria principally, fungi, worms, and insects will miraculously appear in the pile when all the other ingredients mentioned above are present in the right proportion. A pile of green matter should not be higher than three feet. Oxygen cannot enter a higher pile and it may turn putrid and smell bad.

The main ingredients of my compost pile are leaves, kitchen scraps (without meat, but I do include bacon fat), water-soluble packing peanuts, garden waste, lawn clippings, and weeds pulled from the garden. I have difficulty composting leaves, heavy weeds, and some garden waste, particularly corn and sunflower stocks. The leaves mat tightly together and the stems of garden waste and weeds are quite woody. The answer to this is to buy a small chipper/shredder and put all these materials through it. The shredded material will not mat and the smaller pieces provide more surface area for the decomposers to attach themselves. I have not yet bought a chipper and have to overcome my difficulty by constantly turning the pile and shaking the leaf mats apart with a fork. The woody stems never totally break up.

I know within 48 hours after building my pile if I have the right mix. When decomposers multiply and do their thing, a lot of heat and steam is generated. If I do not feel heat when I thrust my hand into the pile, then I rebuild the pile and add some nitrogen and water. I sprinkle fertilizer with an analysis of 10-10-10 on the layers as I rebuild the pile, and then I spray water on this surface with a garden hose. The layers in the pile are about 8 inches thick. Lawn clippings are a great addition to the compost pile in the spring because of the high nitrogen content. Clippings can be added in thin layers to the pile in lieu of the fertilizer.

After the pile has started to “cook” the temperature rises sharply. The maximum temperature will be about 160 degrees. At this temperature the organisms die and the pile cools. This delays the process until the organisms re-establish themselves. I regularly inspect my pile and when the temperature feels too high I turn the pile over to reduce temperature and to add oxygen. This mixing process also ensures an even composting of materials. .

The only tools I use in compost pile building and management are a long handled dung fork, a wheelbarrow, and a source of water. I have a large plastic barrel with an open top to gather rainwater, sometimes to be filled with a hose. When the pile needs to be hydrated, I scoop buckets of water from the barrel to the pile.

The pH of the plant material changes during the process as acid breaks down. The trend is toward neutral. Some sources recommend the addition of lime to the pile. I have never done this, but I think I will try it next year because I use so many tree leaves that are naturally acid. Water, carbon dioxide and heat leave the compost pile during the process. Nitrogen, phosphorous and potash remain in the humus. Microbes, insects, and worms also remain in the composted material and go into your gardens. The humus remaining in the pile will be reduced to about 1/4 the bulk of the original pile, a fact that is pretty frustrating because I never seem to have enough.

I have found that my management technique requires 9-12 months to make humus out of “green matter”. Commercial composters and avid gardeners using the best of materials and methods can accomplish the task in a period of a few weeks. Do not put “unfinished” compost on your garden because it will rob available nitrogen

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from the soil and may cause plant yellowing. I know when my pile is “finished” when I sense the earthy aroma, see the rich dark color, and the humus is cool, soft, and crumbly. Also, the original plant materials are practically indiscernible.

I get a lot of satisfaction from the composting process itself and in knowing that I am converting waste products into something that will benefit me. As a soil amendment and as potting soil alone, humus is unsurpassed, especially in my sandy soil. I know I am saving money because a bag of the same material in a garden supply store is about \$6.00. I calculate that my small pile is worth about \$300. Another benefit of my pile is gratification in seeing my grandsons and grandnephews capturing healthy, wiggly worms from the base of the pile for fish bait. Lastly, I want to proudly mention that Bonnie Koch manages a compost pile at the Recycling Center and Transfer Station. Check it out.

FALL REFLECTIONS (10/2001)

The few weeks before and after the autumnal equinox are the time of the year I most favor. It is not just the sun’s crossing the equator at this time to make day and night equal length. I believe my feeling stems from all the natural phenomena that seem to come together at this time to please my senses and to cause recall of the same happy times of years past. Flowers, fruit, vegetables, wildlife, celestial bodies, and humans all celebrate at this time of year. All these players in the great burlesque of life seem to be at their best during this period and the season brings on happiness that culminates with the celebration of our society’s most important days, Thanksgiving and Christmas.

Harvesting is perhaps the source of greatest pleasure this time of year. In spite of the voracious tomato hornworm and the late season affects of drought, we still have a couple of bushels of beautiful tomatoes to haul into the kitchen. Laura and I spend quality time together in the kitchen canning the many quarts of salsa that will be savored with tortilla chips and, possibly a pitcher full of margaritas, when friends and family gather at the Homestead. There is a lot of chopping and peeling required to prepare salsa. I have become quite proficient at chopping despite being left-handed and otherwise uncoordinated. In this task I insist on a sharp chef’s knife and will use a sharpening stone on the blade for as long as it takes to make the blade like a razor. Laura likes to have me help her in the kitchen because that is the only time she can be assured of having a set of keen blades to work with.

Getting just the right amount of our hot peppers in the salsa mix is a challenge. We have a high tolerance for capsaicin, the chemical in peppers that causes the burning sensations, but we have to respect the tastes of others that we may host. Usually, we make a hot batch and a less hot batch. Our canning effort is more focused on tomato salsa and less on whole or quartered tomatoes. The beauty of salsa (consider the many colors associated with the mix of garlic, peppers, onion, and cilantro) is a treat to the “eye”. Spicy hot salsa on tortilla chips immediately clears the sinus congestion that has been a chronic health problem for me.

Every time we can salsa I have flashbacks to the time when I helped my grandmother can whole tomatoes. As a youth, I never realized that she was hard at work, for me it always seemed that she was having fun. Now, I know that she shared the gratification enjoyed by Laura and me. Though, I suspect that by the time she finished canning the beets, string beans, squash, pumpkin, peaches, carrots, and shell beans, grandma was very tired. I remember that she canned at least 200 quarts of fruits and vegetables. I was amazed by the quantity and by the great beauty of all those Ball and Mason canning jars filled with a variety of pleasing hues and textures, not to mention the stains on her aprons by the end of the canning season. I also remember that she enjoyed serving me a hot dish of stewed tomatoes topped with butter and salt- wow that was good!

Canning is an old skill that is being lost and I think Laura and I do it more as an aesthetic experience than for subsistence and economy as it surely was for my grandmother. The twelve quarts of salsa we make every fall will not have a meaningful affect on our grocery bill, but it will be colorful, flavorful, and a great topic of discussion at parties we look forward to. I believe the pleasure to be derived justifies the effort and frustration associated with raising the twelve tomato plants I plant each spring. Further, other fall harvesting brings on a watery mouth.

My favorite harvest, except for all the rest, is the cantaloupe. Burpee's hybrid is probably the greatest, at least for my garden conditions. The gorgeous melons that I pick are a special treat at breakfast, or as a desert. A vine-ripened melon has an aroma that is sensuous to me. The flavor and texture has no equal in any garden produce that I know of. The two to three dozen prized melons we raise are mostly eaten immediately by the halves, but Laura is able to wrest a few from my clutches to cut into cubes for the key ingredient in cool fruit salads. This year the hot dry weather came at the right time to encourage the growth of my melon patch. Unfortunately, the population cycle of my least favorite rodents, RATS, must be at its peak this year. Two of these critters helped themselves to several prime candidates for the breakfast table that I had been attentively watching. I managed to overcome the threat they posed after using the usual bag of tricks, starting with the trap, then poison, and after failing with the foregoing, finally saved the melons by using a 20 gauge shotgun borrowed from my neighbor.

My eyes are most observant of the natural world and I believe that a strong reason this is my favorite season is that the landscape is awash with a palette of color (think Monet). Sure there are a host of beautiful flowers blooming in the spring, but do they compare with the masses of flowers produced by perennials that spend the whole growing season putting on their makeup and readying themselves for the great show? The fall season has several adjuncts that call our attention to the brilliantly displayed plants. One is the graceful butterfly that floats from one flower head to another gathering nectar. My eyes follow, transferring these magnificent images to my brain to be recalled at will all winter long. Further, it seems that the air is clearer and the sun casts more distinct shadows. These accent Nature's many expressions of beauty during this season.

Laura and I have found the right plants for our garden, I should have known they were the best all along because, as I recall, they were the same species my grandmother raised. I speak of the zinnia with their elegant broad topped bloom. We never know what color they will be, but we can be assured that they will be an intense, almost florescent, hue of white, pink, red, purple, or yellow. Laura picks the blooms and brightens our rooms with large bouquets displayed in her many glass vases. These bouquets usually last all week. What a treat!

During this special season, my times in the field, although associated with work, are happy occasions. I get a high from seeing the prolific blooms on the wild asters and other plants associated with wetlands in particular. There are probably a dozen species of asters that bloom from early September through late fall, resisting the frost that kills most of our garden flowers. Lilac, purple, and white flowers appear to be pillows of bloom where groups of these plants prevail. Boneset, Joe-Pye Weed, Queen Anne's lace, and goldenrod, even with its bad reputation as a source of allergen, all produce masses of attractive flowers. This group does not share the spectacular hues that are apparent in the aster group, but the mass and texture of the blooms are exciting and can change the character of the landscape at this time of year.

I often think of the flowers that graced our fall wedding day. Laura and I chose to have wildflowers for decoration and to have the fall blooming hydrangea tree as the focal point of the ceremony. We picked several 5-gallon buckets full of flowers that Laura arranged in vases of great bouquets. The hydrangea tree with its huge blooms brought the spirit of my grandmother (because she planted it) to the happy day and the wildflowers sang in harmony with the theme of our vows. The ambiance of that day brought us more joyous feelings than would have been experienced on a day during any other season of the year.

The fall season has different meaning today than it did for our ancestors, putting food by for family and farm animals was the key to subsistence 75 or more years ago. Today, I think the preservation of food is mostly for the satisfaction of a need to be creative and to enjoy foods that cannot be readily purchased. In the same vein, Nature expresses more pleasing facades than during other seasons. Did I miss anything of importance happening during this season? Oh yes! There is the World Series.

Community Service: Past and Present (11/2001)

The New Boston Bulletin is, each and every month, a celebration of our community. The heart-warming stories about volunteers, school activities, parents and teachers, ad-hoc committees, auxiliary organizations, social and fraternal organizations, and our town officers, attest to the strength of our community. I know this exhibit of spirit and caring is typical of all communities in New Hampshire and even throughout America, for this is what sustains our society. The tenet of this community has been, since incorporation as a town in 1763, people working together for the common good. Although there was no local media to chronicle the early community spirit, there are records of town meetings that speak of a strong commitment to the orderly conduct of town affairs. I will compare the level of early citizen involvement to the current level we see in this town.

On many occasions I have read the original town meeting records. The experience has been luminous and transcendent for me. In addition I have gained an understanding of how the town was governed. The greatest impression on me is what must have been an incredible amount of time the first town clerks put into painstakingly recording all the minutes of the several town meetings held each year. In addition, the town clerk penned into leather bound journals all the records of marriages, deaths, births, highway layouts, tavern licenses issued, tax assessments, and activities of town officers. I mused about the writing materials used then compared with now and the difference is staggering. I understand from other sources that the ink was home made from ox gall and that the pens were cut from turkey feathers. The paper was dark and rough. The stiffly bound journals would have been difficult to open flat so as to write on the pages. There were no standard forms and the accounts were entered on pages hand ruled with pen and straight edge. Make your own comparison with our technology of record keeping today.

It is plainly obvious to me that our ancestors were personally much more responsible for their own affairs. Our state and federal government echelons now provide services that we take for granted. This is in distinct contrast to the early days of this community. From 1763 until the mid-nineteenth century New Boston was nearly a closed loop relative to commerce, care of the elderly and the poor, law and order, education, and highway construction and maintenance. Even the defense of the country fell heavily upon the shoulders of the Selectmen who were responsible for enlisting militiamen, providing arms, facilitating training of the militia company, and in providing supplies to a state commissary. During the revolution our state government mandated that the Selectmen levy taxes to fund New Boston's share of the cost to supply beef for the Continental Army.

I find amusement in the list of town officers elected or appointed in early town meetings. A majority of them provided functions that have long faded from the minds of community leaders during the past 238 years. Following is a list of officers that were appointed at the March town meeting in 1835: 1 pound keeper; 1 sealer of weights and measures; 17 surveyors of lumber; 12 hog reeves; 40 surveyors of highways; 1 culler of staves; 1 sealer of leather; 4 surveyors of wood and bark; 3 fence viewers, and; 3 field drivers. This represents a serious commitment by 83 citizens elected or appointed to provide important services that are not a part of our life today.

I researched the state enabling statutes for some of the town officers that were appointed in 1835 to better understand what duties they were encumbered with. A common thread among the several statutes I looked at speaks to the critical nature of the service specified in the law. This thread is the authority given the Selectmen to collect substantial fines from citizens that chose not to do the community work assigned to them. Our ancestors clearly understood that if one citizen failed to “card the wool” so to speak, the others had to work harder to “spin the yarn” that was the fabric of the community.

Highway surveyors are of particular interest to me because I found an account book in my attic that was kept by my great-grandfather when he was a highway surveyor. The first highway surveyor statute I read was passed in 1776 and it stayed in effect until at least 1860. Under the provisions of this act towns were allowed to determine how much money was needed to build and repair highways and bridges and to collect this money by tax levy. Selectmen were authorized to divide the town into districts and they could choose surveyors of highways to implement the road construction and maintenance in each district. They were also to give each surveyor of highways funds to pay for the work and a list of residents in his district capable of working, then burdened him with the task of keeping an accurate account of payments. The highway surveyors were given authority to hire the men on the list plus any tools and draft animals that he needed to get the job done.

A part of the surveyor of highways law that points out the extent of local responsibility is the penalty clause. The highway surveyor was empowered to fine any worker that refused to participate in highway work without just cause. He also had the power to fine workers that offered to sell liquor to travelers on the highways because they would be guilty of selling spirits without a license. I wonder if Lee Murray, our own road agent, has similar authority, although I guess it is not a problem because none of his crew has ever offered to sell me a drink while I was passing a road repair site.

Apparently, pigs have been a problem for a long time. In 1718, the earliest date I found of an act regulating swine, it became unlawful to allow swine to run at large on any highway, or on land of another. Further, all swine had to be yoked and ringed. My understanding of the function of a yoke was to keep the pig from burrowing under a fence. The ring in the pig’s nose was meant to discourage rooting. The law also set up the office of hog reeve and gave him authority to enforce the law by inspecting all pigs to ensure yoking and ringing and to impound all pigs running at large. The reeves had the authority to charge fines to owners allowing their creatures to run at large and to charge expenses for impounding animals. If owners did not claim stray swine in a time certain, then the reeves were allowed to sell the animal at public auction, collect the money, pocket their expenses, then give the remainder of the proceeds to the care of town poor. The greatest limitation on the power of the reeves was that they could not impound any swine on Sunday.

The hog reeves and the pound keeper worked in consort with one another, but the pound keeper was responsible for managing all stray animals. New Boston had a pound situated on the easterly side of the meetinghouse lot adjoining the Cemetery Road. Both the meetinghouse lot and the old pound lot are now part of the New Boston cemetery grounds. The pound keeper was charged with the responsibility to bring stray animals to the pound and to care for them until the owners could retrieve them, or to sell them at auction if they were not claimed. He also could charge a fine to owners retrieving their animals and could collect from them his expenses of maintaining the animals.

In the period of subsistence agriculture, the croplands and pastures were cleared of trees and stonewalls were built to enclose livestock. The stonewalls built upon property lines were considered common property held jointly by the owners on each side of the line. Therefore, the cost of building and maintaining the stonewalls was shared equally by the two owners. Sometimes the landowners disagreed over the proportional share of the fence for which each was responsible. The fence viewer’s job was to settle the dispute by appraising the cost to build the fence and to determine the equitable length of fence each owner was to build. He also ruled on the adequacy of the fences so built.

Most of the other town officers in my list were charged with regulating the basis of sale for goods that were produced locally and sold locally. In most cases the state provided the standards for measurement and the town officers made sure that all commerce was conducted in accordance with the standard unit of measurement. Any consumer of locally traded goods had the right to check the seller's scale, or measure, against the standard maintained for such checking by the town officers. Any seller that misrepresented the measure of his goods was subject to fines.

I am convinced that our community is a partnership between previous generations, the present generation, and unborn generations. Previous generations were much more responsible for their own destinies than we are today. In these times our lives are governed by faceless agencies in far away places and we accept their mandates without thinking about our welfare. I wonder if our community would be closer and the people more informed if all citizens were required to provide some community service. Our social capital balance would certainly rise to staggering proportions and future generations would be more likely to inherit a community with the same values and amenities that we enjoy.

Our Kitchen Garden (12/2001)

The weather has turned chilly-one moment I am feeling fine with a light jacket, then a blow from the northwest makes me wish I had on another layer. Our vegetable garden yielded its final picking long ago-more recently I blanketed our perennials with thick compost and bid them a long rest. Yet, there is another garden that now, without competition for our attention, is the jewel of our eye and is staunchly the sensation of our taste buds.

Many years ago I went to Sturbridge Village, a wonderful restoration that realistically portrays colonial life in New England, situated in Sturbridge, Massachusetts. Among the many images of that village lingering in my right hemisphere is that of the special little gardens that played a critical role in the lives of our ancestors. The curators at Sturbridge called these "kitchen gardens" and I was told that these were completely managed by the women in the household, wives and daughters. Kitchen gardens were located just outside the farmhouse kitchen door, convenient for procuring instant flavoring, natural remedies for most ailments, and just aesthetically pleasing colors, textures, and aromas to be enjoyed in the few leisure moments that a woman could find in a day.

From that day at Sturbridge, I realized how important these gardens were to the welfare of our predecessors and I wondered why my grandmother never had a kitchen garden, especially since she had such love for her flower and vegetable gardens. Then I remembered that, though her cooking was good, I do not recall that it was "spiced". Forgive me Gram, but your cooking was just plain "meat and potatoes". Further, I do not recall that she used herbs for natural remedies, except that I remember her giving me catnip tea when I had an upset stomach. She was at least one generation removed from the one that used home grown herbs for medicine.

From the date of that visit to Sturbridge, I knew that we would probably not use herbs for natural healing because of the vast knowledge of botany and chemistry that is necessary to prepare and use herbal medicine. This knowledge was once commonplace in the community, now it is held by a very few that have devoted their lives to perpetuating the science. However, I was driven by the artistic and culinary appeal of having a "kitchen garden". I found no difficulty in selling the idea to Laura-this is understatement-she insisted that I build one.

Just outside the entry to the ell of the house and under the kitchen window, there was a patch of lawn about 12 feet by 12 feet in size. I built a stone retaining wall along the low side bordering the driveway to raise

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the bed about one and one half feet. Then I placed a layer of medium sand about six inches deep in the enclosure and another six inches of a mixture of garden loam and compost over the sand to bring the surface to the level of the stonewall. For convenience, I placed a flag stone walk through the middle. Laura and I had no experience with herb gardening so we went to Pickity Place in Mason to purchase seedlings and for advice on what species we should plant.

We spent several hours there looking over the many plants and listening to advice, not to mention having a gourmet lunch that I think is Pickity Place's best endorsement for the use of the herbs they sell. That was a memorable day. The back of the Pathfinder was filled with flats of planting pots we purchased, I can not remember how much we invested in plants, but it must not have been enough to excite my conservative nature. The next day Laura and I set out the plants in an arrangement that suited our sense of balance and composition. The chives we planted in a border around the edge of the bed along the stone retaining wall. In the center we placed the sage and the tarragon. In a row close to the house foundation, but out of the drip line of the eaves, we tucked in masses of sorrel, oregano, garlic chives, and mint.

At the corner of the bed next to the shed door we preserved the tansy plant that was left over from my Grandmother's old perennial garden. This plant is not for consumption, but for decoration and we are told that it would keep flies away from the door. Another plant that has volunteered to enter our herb garden is a common member of the mint family, catnip. I suspect the source of this plant also comes from stock propagated by my grandmother, or possibly from the gardens of my great-grandparents. We have a lot of fun with this plant because of the affect it has on the four feline members of our household. All of our cats are affected to different degrees. The reaction brought upon our oldest cat, Hollis, is most dramatic-in fact we think that he may be addicted to the herb. We place a stem with a few leaves on the floor and he leaps upon it with gusto, devours it voraciously, and then having gotten his "fix", exhibits all sorts of weird behavior. He vocalizes in a half purr-half yowl; he rolls over and over on the floor; he rubs against anything including the other cats that are sitting around watching in awe.

Along the flag stone walkway we set the mat-forming thyme and the dainty chamomile plants. Laura and I were amazed at how fast these plants spread and how little care they required-the extent of which we learned by observing the nature of the growth habit they displayed. We found that they could be enhanced by pruning back the leading stems that occasionally bolted toward the sky. This practice we find needs to be done twice during the growing season to make the plants bushy and attractive. The plants that flower need to be deadheaded often to sustain the blooming habit. An interesting observation of these plants is that they seem to discourage the growth and competition of the weeds we constantly fight in our vegetable garden. Do the herbs produce hormones that discourage the growth of weeds?

As we come to have increasing enjoyment from our herb gardening, we make regular springtime trips to Colonial Acres greenhouse for more annual herbs to set among the perennials in our kitchen garden. Parsley, cilantro, dill, and at least two varieties of basil are among our favorite annual herbs.

It is getting late in the day now and my reminiscence about our herb garden is short-circuited by activity in the kitchen. There goes Laura with kitchen shears in one hand and a basket in the other, whoops she forgot to put on her shoes, as she heads for the kitchen garden. Just as always happens when I see her do this, my mouth begins to water in anticipation of what she will do with the herbs she brings back into the kitchen. Will it be a meal out of one of Suzanne Somers' cookbooks with the addition of our own herbs? Or, will it be something from Laura's own imagination such as a lamb stew spiced with oregano, sage, parsley, then topped with chives just before serving? I am certain that it will be equivalent to a gourmet meal at any fancy restaurant. That is what fresh herbs do-they add a distinctive, zesty flavor to meals that are not savored by the main ingredient. They separate an ordinary dish from the extra-ordinary and it is amazing how simple it is to bring about this transformation.

I am hoping that the snow comes late so that our herbs do not get covered; Laura has said she refuses to dig in the snow to pick herbs even with her strong desire to use them in her recipes. I find it very wonderful that our kitchen garden can resist the killing frosts we have experienced to date and that they are still green, aromatic and flavorful. Are there also chemicals in the cells of these plants that act as an antifreeze?

I am so happy that the trip to Sturbridge Village several years ago motivated me to build our herb garden, my efforts have been rewarded many times over. Even though these plants do not provide all the functions that they did for my ancestors, particularly the healing function, I have developed a deep respect for these hardy and beautiful plants that, for at least nine months of the year, flavor my meals, please my eyes, and that offer pleasant aromas for me to inhale over my olfactory nerves as I walk past them on entering my home after a day in the field.