

Table of Contents

<u>Published</u>	<u>Title</u>
<u>01/2007</u>	<u>The New Hampshire Collage (early N.H. townships)</u>
<u>02/2007</u>	<u>Elements of Rural Character</u>
<u>03/2007</u>	<u>Lamplighter Loses Job (electricity comes to town)</u>
<u>04/2007</u>	<u>Cougar - Legend or Living</u>
<u>05/2007</u>	<u>Patterns on the Land (see 4/1998)</u>
<u>06/2007</u>	<u>Flood Waters Destroy History (mills in Gougeville)</u>
<u>07/2007</u>	<u>Runaway Worms Can Be Harmful</u>
<u>08/2007</u>	<u>A Local Man Looks at Ecology I</u>
<u>09/2007</u>	<u>A Local Man Looks at Ecology II</u>
<u>10/2007</u>	<u>Paul Saltmarsh (bio of 1930s-40s entrepreneur)</u>
<u>11/2007</u>	<u>Getting to Know Great Grandfather (James P. Todd)</u>
<u>12/2007</u>	<u>Weighing Up Local Trade (scales)</u>

The New Hampshire Collage (1/2007)

A collage is defined as a picture made by sticking cloth, pieces of paper, photographs, and other objects onto a surface. This definition of the art form may be used by an artist to creatively tell a family history with human scale and a limited sphere of interest. Surpassing all others in scale may be a collage artist with boundless vision who can “zoom out” and tell the history of a town or a state and attract universal interest. In this article I discuss my perception of how human influence has developed an interesting collage on the surface of New Hampshire. (Lest, my readers have concern about a philosophical deflection in this column, I purposely omit the influence of natural landforms and processes that also influenced the collage.)

An analogy between paper collage and landscape collage is probably a stretch, but there are similarities. A traditional collage may tell a story with personal items meaningful to only a few. On the landscape level the state’s historical patterns of land settlement in the form of squares, rectangles, triangles, and circles tell a story about our culture of interest to everyone. The landscape collage is not constrained by time- it changes continuously as development passes from one era to the next. New geometry is added and new information is communicated from one generation to the next. Every time a new line is placed on the landscape a new map is made and the collage is revised.

During my life as a surveyor my eyes acquired the habit of seeing the geometric patterns on maps that show through the overlying text, symbols, letters, and numbers that communicate important information. It is these patterns that build the collage created by the rhetorical artist, in most cases a surveyor or cartographer. When my attention is focused on old maps I wonder, did the surveyor feel that in making a map he was fulfilling a dream of self expression in an artistic way. To some degree these are my feelings. “Sticking” my survey plans to the ground and creating land use patterns are to some degree satisfying a need to express myself artistically.

Perhaps the first great mark on the New Hampshire landscape was conceived by imaginative “artists” in 1629. The members of the Plymouth Council were such artists. The Plymouth Council, having been incorporated and granted land by King James, was authorized “... for the planting, ruling, and governing of New England, in America...” Out of this grant by King James, the Council split out several large pieces, one of which was granted in 1629 to John Mason and described, “...*from the middle of the Merrimack River to the Piscataqua River, thence up the rivers to their headwaters and thence northwestward until 60 miles from the*

mouth of each is reached, with a boundary overland from each sixty-mile distance (I took the liberty to leave out all the ye, ye, ye's).

The title to this land descended from one generation of Masons to the next until July 1746 when John Tufton Mason sold the land to 12 substantial members of the oldest and most influential families in the Province of New Hampshire. In the period 1629 to 1746 the map of the Mason land had not been “stuck” onto the landscape, most likely because there was no pressing need to know the location of the limits of the grant; no settlement had occurred. However, the 12 purchasers of the Mason land, called “The Masonian Proprietors”, were eager to get on with their business of land development and at a meeting in Portsmouth planned to have their land boundaries established and marked by a survey.

Colonel Blanchard and his son were hired for the task. These surveyors interpreted the most inland limits of the Masonian Proprietors’ land to run on a great curve with a radius of 60 miles. I can imagine how they may have felt about creating the most unusual property line ever imposed on the surface of what is now New Hampshire. Although its significance now is not as first intended, the curve is still a major piece of the collage.

In 1751, the survey was made and the Mason Curve, so called, became stuck on the surface of New Hampshire. Take a look at a map that clearly shows the framework of town lines and place your finger on the Massachusetts line at the southwest corner of Fitzwilliam. Then following along an arc trace the curve on the west boundary of Fitzwilliam to portions of the west boundaries of Troy, Marlborough, and Roxbury. Skip through the middle of Sullivan and trace the western boundary of Stoddard and a portion of the west boundary of Washington. Pick up the curve again on the northerly portion of the west boundary of Newbury, pass through New London to the northerly end of its west boundary and continue to trace the curve along the northwesterly boundary of Wilmot, Danbury, and a short portion of the Alexandria town line. The remainder of the curve is not distinguishable through the several more towns along its traverse.

Even before the curve was glued to the land, the Masonian Proprietors conveyed townships to themselves individually and to other groups of organized land developers. In 1748 Goffstown was the first town granted by the Proprietors. They continued with their business of granting and settling of townships for the next forty years. During that time the group granted about 37 townships and in the process added much more geometry to the developing collage.

Squares apparently appealed to the Masonian Proprietors because the dominant figure was a square. The favored square was six miles on a side. New Boston seems to represent the best example of the six mile square townships which may be appealing in the collage because of the orderly focal point they contribute. It is interesting to note that the six mile square township was chosen as the exclusive basis for the Public Land Survey System established by the Federal Government in 1785. Although the square is artsy in the New Hampshire collage, the repetition of the square over the entire western landscape creates an monotonous collage.

Other interesting geometric forms contribute to the New Hampshire map as an object of art. Triangles added more eye appeal. Madbury is probably the most perfect triangle in the entire state with Windsor being a close second, and Dunbarton is a third, though it is a truncated triangle. Parallelograms and rectangles of various sizes dispersed throughout our state create a collage with dynamic diversity. The smallest towns are situated in the seacoast region and these reflect its earliest development while the northern part of the state has the largest townships reflecting this area’s later development history.

The left over areas within the regular settlement pattern in the Masonian Propriety were granted in townships with very irregular, free-style boundary forms. Typical of these figures include Bennington, Greenfield, Lyndeborough, Laconia, Livermore, Bridgewater, and Troy to name a few. These towns definitely

2007 *“In the Country”* by Robert Todd

added interest to the collage. Looking within the irregular town perimeters one may find a repeated pattern of squares, rectangles, and triangles on a more human scale. It is these patterns from which came the boundaries of the first settled farms.

Some artists tie elements of their works together with straight lines, so too have the powers creating the state collage added turnpikes to the landscape. Beginning in 1796 and for about one hundred years, turnpikes were added until the great collage seemed to please all. 32 turnpikes were incorporated in that era and on the collage they created a regular striped pattern running from the Connecticut River at their northwest termini toward the southeast, intercepting the Massachusetts line. Some shorter branch turnpikes were, in the later days of the era, struck off in feeder route fashion from the original ‘pikes.

Railroads flowed across the collage during the mid-nineteenth century. These added graceful curves and abrupt switchbacks with short tangents. By themselves the maps of railroad lines are pleasing to behold and as elements on the landscape they added great appeal to the developing collage. The collage took on a more free-flowing, perhaps flamboyant specter, with the inclusion of the railroad lines.

Modern collage makers are in a great hurry to add detail to the landscape, perhaps they fear losing an opportunity to express themselves in the manner of those who came before them. Their marks are mostly in free form and at a small scale. The resulting small scale detail may mask the underlying beauty of the previous editions of the collage and thereby diminish the allure of the true-life scale landscape.

As time goes by the great collage will be continuously revised. The urban blobs will most likely sprawl outward and the remnants of the early patterns will be fragmented. When I picture this in my mind I get uneasy and when I experience it in real life I get irritable. Although I am proud of surveyors’ role in creating an artistic landscape, I am not so eager to be one who revises the great collage in my daily work.

Authors Note: This article is based in part on the papers in Proceedings of The Seminar on THE HISTORY OF NEW HAMPSHIRE RELATIVE TO LAND SURVEYING, (1979), authored by Donald A. Wilson, Robert B. Todd, Charles E. Clark, and Brian Nelson Burford.

Elements of Rural Character

What is it that endears people to the Town of New Boston? This is a rhetorical question, of course, meant to introduce the theme of this column. But, it is one asked in a questionnaire distributed to residents after the “New Boston Speaks” session conducted in 2004. The results of the session and questionnaire answered my opening question in general terms: it is “Rural Character”. This phrase first appears in the Vision Statement of the Master Plan For The Town of New Boston, New Boston Planning Board (9/12/06), and is reiterated in nearly every goal relating to land use throughout the plan. The answer to the above question gives rise to a rallying cry: MAINTAIN RURAL CHARACTER!

While growing up in New Boston, I formed a perception of the local qualities that tie me to life-long residency. During my formative years (1946-1958), what I enjoyed and what I was most influenced by in this town, forged the value judgments held today. This is not to say that my love of this community is any less now than it was when I was young, but there have been forces imposed locally which diminished those personal values. In the forefront of my memories are the several working farms that dominated the landscape in my neighborhood and the several boyhood friends that lived on them. Most of us had chores to do and we all enjoyed the farm animals; cows, calves, horses, and pigs: by osmosis we also learned a lot about life. We played baseball in the fields, often using dry “cow-pies” as bases. “Skinny-dipping” in the swimming hole was a favorite hot-summer-day pastime in the Middle Branch of the Piscataquog. Our mode of transportation was bicycle, often with two aboard, or sneaker treads—traffic was never a hazard, even on Route 136.

Forests, wetlands, streams, and ponds attracted us. In our early adolescent years we used home-made slingshots to hunt chipmunks and red squirrels that chattered at us from the top of stonewalls edging gravel roads. In the wetlands we competed to catch the largest bullfrog by dangling fish-hooks baited with red cloth at their nose. Mothers and grandmothers were often asked to fry frog-legs for lunch: a tasty treat from the kitchen (an expensive entrée at “The French Bistro”). As we grew into our late-teens our hunting and fishing methods became more sophisticated and far ranging as we ventured into the forests with real firearms and into wetlands with spin-casting gear. All of these activities contributed to our knowledge of animals and their habitats. These experiences bonded me with the natural world and formed a great part of what I hold to be rural character.

Downtown activities also made this town a wonderful place to mix and mingle with young and old. Dodge’s store was the primary attraction; guys (and girls) hung out on the porch to socialize; candy and soft drinks purchased within kept us energized. The baseball field— appearing today nearly as it did then—seldom had scheduling conflicts. Local men coached us in an organized little league, or pick-up teams comprised of kids in town occupied us on many summer days. Saturday night movies on the playground ranked high in my mind as a summertime attraction. The movies continued through the fall and winter in the upper town hall: the projection room is still intact. Most guys, including me, took their first date to the movies and walked her home after the show.

School, Youth Fellowship at the Church, Playground Association, and Boy Scouts of America, Troop 123, were institutions that engaged my friends and me in character building activity. The Fourth of July celebration was held on the baseball field, in the Town Hall, and on the Town Common, with the parade route ending in the village. The Grange, 4-H, and Future Farmers of America jointly sponsored and staged the Annual Agricultural Fair. These activities forged strong attachments to this place and its humanity and welded the community together—a phenomenon typical of rural character. I assumed these treasured values would never be diminished.

Everyone has his own understanding of rural character: those older than I have different feelings about the subject, feelings molded from varied experiences and backgrounds; those younger than I hold on to much different values, probably with less connection to the natural environment. Despite the fact that a lot of the rural values I hold are much diminished by time and by what I sometimes consider a rude invasion on the landscape by non-traditional development inhabited by younger folks from away, there must be some thread of common value on to which we can hold for the future.

I looked to Eric Sloan; one of the first to identify and publish what he thought constituted rural character, for insight about what qualities of this community may be candidates for preservation. In his book, “Our Vanishing Landscape”, published in 1955, Sloan explains that trees are symbols of Americana. Our master plan has identified Forest Resources (Chapter 7) as a key element of our rural character. The Forest Resource goals ask us to maintain the forest cover for the many benefits to be derived. This reflects the response citizens made on the questionnaire in answer to the inquiry about the importance of preserving the forest. On this question respondents believed forest preservation (67%) and “open rural character” (68%) to be most important. It would seem that these questions are not mutually exclusive: forests are synonymous with rural character.

Tom Wessels authored “Reading the Forested Landscape” (2001) in which he describes the forest as a book of natural history, and his readers will have a better understanding of how man’s influence on the forest actually scribed the chapters. He says that studying the forest on a landscape level creates reverence, respect, a sense of inclusion, and accountability. This tenor is also mirrored in Chapter 7 of the Master Plan and lends further support to the theme that forests invoke rural character.

Sloan's list of vanishing landscape items includes farms. He describes farms with words such as functional, basic, and traditional. The pattern of farms on the American landscape reflects our culture and denotes strong individuality and self-sufficiency. Presently, New Boston has little agricultural activity to sustain traditional farms. What we have left is the agricultural land use pattern, established during the settlement era, and the architectural diversity of farmsteads. The once functional farm structures; corncribs, icehouses, chicken coops, and carriage sheds have become few in number and identity. Our Master Plan, Chapter 7, has a goal of preserving areas with the most suitable agricultural soils and for providing opportunity for innovative agricultural methods. On a hopeful note, the Historic Preservation Chapter (7) speaks about the preservation of traditional barns and explains the tax break a barn owner may be privileged to receive by taking advantage of NH RSA 79-D. Therefore, barns, as an icon of farming, may continue as a moderately important element of rural character in New Boston.

Another vanishing icon of rural character that Sloan mentions is stonewalls. Sloan says that stonewalls are what impresses one most about New England. Robert Thorson has recently written two books on stonewalls; Kevin Gardner has written "Granite Kiss"; and William Hubbell has just published "Good Fences": these publications measure the recent increased fascination with stonewalls. Aside from long standing boundary evidence, stonewalls could be our most enduring symbol of the relationship between man and the land. Our Master Plan addresses the importance of walls in Chapter 5, Transportation. One of the objectives in this chapter is "...preserving existing stonewalls along roads...." Further, there is an article on the significance of local stonewalls in Appendix F of the Master Plan.

In review of my short investigation, I believe there are at least three elements of rural character that will be a legacy for many generations to come. These three are easily distinguished and pure in value, however, all are subject to activities that would diminish their values, or destroy them. Two are finite and irreplaceable. Forests, on the other hand, are renewable, though not in the lifetime of those in my generation. The Master Plan does an excellent job of pointing the way toward preserving these three elements of New Boston's rural character, despite a few internal conflicts between objectives.

Although I have only investigated a few in this column, it appears that several elements of rural character in the village that I enjoyed during my adolescence have been lost, or greatly diminished. What I see today is the rural character of tomorrow, but not of my youth. I find it ironic that most of New Boston's landscape that we find endearing was developed in a time before zoning and subdivision ordinances were adopted: the landscape that we find objectionable was developed after zoning and subdivision ordinances were adopted to protect rural character. Again we look to those same tools for our salvation. I hope that we have learned from our mistakes.

Lamplighter Loses Job (3/2007)

Dateline: New Boston, March 11, 1896

The New Boston Selectmen announced today that Lamplighter E. L. Rose would no longer be employed to tend the oil lamps in the village. This announcement came immediately after the town meeting voted to authorize the Selectmen to contract for the lighting of streets by electricity. Many village residents regretted the Selectmen's action and noted they feared a loss of security that Mr. Rose's service provided during his daily work of lighting the oil lamps in the evening and extinguishing them at dawn. Rose was ever vigilant for threats to life and property. More than once he was credited with initiating early response and possibly saving lives by ringing the bell on the engine house after discovering chimney fires. Frequently Mr. Rose has been praised by villagers for his early morning alerts that J. R. Whipple's livestock were loose in their gardens. Mrs. Farley gratefully stated, "last August Whipple's cows broke the pasture fence on Duck and would have destroyed my corn patch were it not for Rose's knock on my door early one morning."

Some village residents also complained about the high cost to the town for installing light poles and lights in the village at a cost of \$96 per year for four years being paid to Kimball J. Wilson and Son. Residents said they were well satisfied with the old oil lamps. The cost for oil and the services for lighting and maintaining the lamps had averaged only \$30 per year for the past several years: now the cost would triple and since Rose would not be on the street for his daily duty, the town would have to hire a watchman.

Had the New Boston Bulletin been printed in the 1890s this "press release" may have been front page news. Mr. Rose did lose his job and the village lost its watchman. This scenario has been repeated many times in our history when the introduction of new technology caused social and economic impacts. This change would have come much later to New Boston were it not for the efforts of one local resident.

By 1896 most cities in New Hampshire were electrified. Recently, I observed a picture of Concord's Main Street dated 1892. The street was paralleled by tall poles holding 12 cross arms; on each cross arm was strung many wires. I was amazed to see the sophistication of this at such an early date. A quick internet search further amazed me by learning that the first electric company in New Hampshire was incorporated as the Manchester Electric Light Company in August 1881 and on the evening of April 23, 1882 the first electric street lights in the city put many lamplighters out of work. Nashua had streetlights beginning in 1886; more lamplighters out of work. I compared these dates with the 1896 initiative in New Boston and reflected: how incredulous it is that just ten years after Nashua lit its streets this tiny village would enter the "light-bringer" era.

This column topic was inspired in part by the question asked me by Wayne Blassberg as we left a meeting in the Town Hall one day more than a month ago. From remarks prefacing his question I understood that he had been using his dazzling computer skills to analyze old photographs of the village. Having scanned these images, and manipulated them by enlarging, and adjusting the lightness and darkness of the detail, he observed a number of tall-white-painted poles skirting the streets. Wayne's observation captured his imagination and he asked me if I knew about the poles. Wayne's inquiry stumped me, but it enticed me to do some research and some of what I found includes the fabric of the preceding paragraphs.

Anecdotal, but reliable, statements credit Allan Page Wilson with the electrification of New Boston village. Could it be that the poles of Wayne Blassberg's question represent Wilson's electric distribution system?

The town reports in the period of 1880 to 1940 were searched for any reference to electricity and to Allan Page Wilson (more familiarly known as Page Wilson). The 1896 town meeting report mentioned above 2007 *"In the Country"* by Robert Todd

was the first reference I found and it was later confirmed that Page Wilson was the “son” in the firm name, Kimball J. Wilson & Son. Page was 26 years old when he was, perhaps, given this opportunity to be an entrepreneur by his father so that when he received the first payment from the town he became a forerunner in the field of electrification. An article appearing in Granite Monthly, (1897) states: “The streets and some places of business are lighted by electricity from the plant of Allan P. Wilson, a young man of growing knowledge as an expert in this line, whose business increases.” This publication also has a picture captioned, “New Boston Electric Light Plant”, that shows a two story building of considerable dimension. The building is said to have been torn down, at least in part, by Henry Fredrich, who operated a blacksmith shop on the site and later built a home there.

The electric plant that Page operated was most likely located where is now situated the second house on the left seen after the Depot Street Bridge as one would drive on River Road toward Daniels’ Garage. Due to its proximity to the Piscataquog River, it is also likely that the plant generated electricity by using a water powered turbine with a penstock to carry water directly from the Piscataquog River.

Each town report in succession from 1896 until 1917 listed actions to renew the lighting contract with A. P. Wilson and the payments made to him for that service. My interpretation of the town disbursements from 1896 until 1917 indicates that Page received a steadily increasing yearly income ranging from \$372 to \$760. During that 21 year period, lights were extended incrementally down River Road, up High Street, down Route 13 toward Milford, and around the Mill Street loop. Nearly every year there would be a warrant article to extend the lights from one person’s house to another further down the line. There was an action by town meeting to electrify the town hall and the engine house and in the 1916 town report the New Century Club supported an article to appropriate \$100 to light each face of the town clock. The 1913 town report itemized the kilowatt hours used by the town and the amount paid per KWH: 589 @ \$0.20. I found no record of private residences, or businesses, that were electrified by the Wilson plant, but I presume there was a substantial number.

Apparently, Page Wilson sold his entire enterprise to the Manchester Traction Light and Power Company in 1917. The details of the purchase are not available, although it is a fact that the building on River Road was not part of the deal. Manchester Traction was one of the five companies that were consolidated to form what we know as Public Service Company of New Hampshire. Manchester Traction is most well known for the electric train system it operated with a route connecting Manchester with Goffstown village. It is presumed that Manchester Traction constructed a distribution line from Goffstown connecting with Page’s distribution system in the village.

Page Wilson was 47 years old when he sold his business and he apparently did not hold steady employment for the rest of his life. He did establish himself as a leader in town and a respected civil servant. The town report identifies him as tax collector and town clerk until 1940 when he died at age 69. Page never married and his only heir was a cousin living in Potsdam, New York. It is said that Page was a colorful personality, often wearing a full-length white duster and no shoes. Frances Town remembers Page living in the house on Mill Street opposite the schoolhouse (the schoolhouse lot is now occupied by the Nbfd) and often the class was disrupted by the braying of Page’s donkey. Also, Page was known to provide transportation to residents needing to travel to Goffstown and other towns, on account of his owning an automobile.

The inventory of Page Wilson’s estate included: one guitar, one flute, 2 violins, a banjo, a piccolo, a two-drum set, and a slide trombone. With all these musical instruments he possessed, I have to believe that Page was a popular figure in local shows.

It is not so bad that Ed Rose lost his job as lamplighter, for he soon became one of J. R. Whipple’s workers in the creamery. Page Wilson probably was not responsible for the tall white poles in the village, but evidence observed on a 1909 photograph depicting High Street proves him the man that brought light to the

2007 “*In the Country*” by Robert Todd

village through wires strung on shorter dark-wooden poles. In a time when only cities had electricity, Page Wilson brought joy, convenience, and possibly musical entertainment to the little village of New Boston.

Eastern Cougar: Legend or Living (4/2007)

A question has tantalized me since February 3, 2007; the day I listened to Kurt Rinehart, a wildlife biologist, give the keynote address at the New Hampshire Association of Natural Resource Scientists annual meeting. He wowed the audience by giving exciting evidence of the existence of the Eastern Cougar throughout the northeastern United States and the maritime provinces of Canada. Though every listener practices in the field of natural resources, the cougar is not at the forefront of collective thinking. Nor, is this top predator a part of ecosystem management planning at the private level or governmental levels. I wonder if any of my colleagues share my compelling need to understand the status of this mythical animal; the question strikes me every time I look at my cats.

Several histories have provided me with interesting facts about the cougar, also called mountain lion, puma, panther, catamount, plus other less common names. So many names stems from the great historical range of the animal and the many human cultures it overlaps. The historical range of the cougar included all of South America, Central America, Mexico, all the lower 48 United States, and the temperate regions of Canada. This creature had the most extensive range of any American terrestrial mammal. Genetic studies have shown that 32 sub-species of the cougar inhabited this range.

The northeastern states, New Brunswick and the Gaspé region of Quebec provided habitat for the cougar until colonization by Europeans. In 1634 William Wood wrote New England's Prospect in which he described his expedition to the New England area during the period of 1630 to 1634. Among Wood's listing of resources he found in this region were a number of animals; cougar, lynx, wolverine, wolf, bear, moose, deer, elk, bison, beaver, turkey, ducks, pigeons, and martens. Wood's accounts of the wildlife species common in the area are confirmed by other writers of his time who also made note of Englishmen taking cougar skins in trade with Indians.

As it was with many species, the cougar became extirpated during the seventeenth and eighteenth centuries, wholly because of changes on the landscape brought on by settlement and agricultural pursuits. Man was intolerant of predation on his livestock and the cougar succumbed to trapping, poisoning, and shooting. John James Audubon wrote that by 1846 the cougar had been exterminated in all the Atlantic states. By 1891 the cougar had faded into legend and it was unlikely that even stragglers could be found at that time. For most of the twentieth century cougar talk was silent and most considered the animal extinct except for the Rocky Mountain Range from Canada into Mexico and a population in southern Florida.

But are eastern cougars extinct? The species has been on the endangered species list since 1873. It appears that the official position of the US Fish and Wildlife Service is that the Eastern Cougar is extirpated from the east. This official position is apparently based upon the results of the Eastern Cougar Recovery Plan (1982) in which is stated the animal can not be considered established until it is known that are at least three separate populations, each containing 50 or more breeding individuals exist. The plan was not implemented because evidence was not found which substantiated the existence of these numbers of animals. Even one population of 50 individuals may have prompted the Fish and Wildlife Service to downlist the species to "Threatened Status". The plan did, however, admit that the numerous sightings, individual road kills, and discovery of track and scat was strong evidence that it is possible random animals do exist in the wild. Government biologists reported however, that as many as 90% of these reports were unreliable and not scientifically documented.

The increasing number of cougar reports in the northeast during the past decade has prompted the U.S. Fish & Wildlife Service to take another look at the status of the Eastern Cougar. This initiative is headquartered at the agency's Northeast Regional Office in Hadley, MA. Biologists there have decided to request public reports of the cougar and to compile and evaluate scientific evidence that will help them understand the status of the cougar and determine what actions the Service should take. Notice of the study was printed in the "Federal Register" on January 29, 2007 and requests for cooperation have gone out to all fish and wildlife agencies in the northeastern states and the Canadian Maritime Provinces.

It seems that the Canadian wildlife biologists have taken a more pro-active approach to determining the status of this mysterious species. An Information Bulletin issued by the Manager of the Ecosystem Conservation Gaspésie Field Unit confirmed the existence of cougar in the Forillon National Park of Canada (Gaspé, Quebec). Biologists set up olfactory bait stations in the park to attract cats to a pole wrapped in rough carpet. The animals rubbed themselves against these poles, in a manner similar to my house cats rubbing against the furniture, leaving hairs on the carpet. Hair was collected and sent to a laboratory at the University of Montreal where it was determined to be from a cougar belonging to a North American population. The cat that left his hair lives about 600 miles, as the crow flies, from New Boston. Not a long walk for a cougar considering that a radio collared western cougar was tracked over 900 miles in a period of 7 months.

About four years ago private volunteers enthusiastically took on the task of documenting cougar sightings in the eastern states and formed the Eastern Cougar Network. The group has specified that evidence it will consider credible must be: a dead body or body parts; photographs clearly showing an identifiable animal; and scat or hair containing cougar DNA. I visited the website maintained by the Eastern Cougar Network and was awed by a map of the northeast showing 11 sites where credible evidence has been found during the period of 1992 through 2005. The closest sites are at Cape Elizabeth, Maine and at the Quabbin Reservoir in Massachusetts.

Since February 3 I have been obsessed with studying everything I could find about the cougar, including all internet sources and a book titled The Eastern Cougar, edited by Chris Bolgiano and Jerry Roberts, Stackpole Books, (2005). Today, I pondered the question: is the cougar legend or living? I am convinced that it is living and that it is likely that during the past 100 years the cougar persisted in low numbers within the north woods of New England and Southern Quebec where the forest was never cleared and the deer herd was their most abundant prey. Within the past three decades the species has increased in numbers and may soon spread throughout the forested portion of the region where human populations are lowest. This pattern of re-establishment is the same as that observed of the Eastern Coyote during the past forty years.

From the literature it is apparent that there is adequate habitat in the northern portion of this region to support viable cougar populations. Studies show that the deer herd is greater than it has ever been here and other prey species are also abundant. In combination, these observations lead to a likelihood that the cougar population will gradually increase. But, this happening is more a matter of human tolerance of the animal. Hunters will be angered by the potential competition from cougar taking "their" deer. The energy requirements of a lone cougar indicate that it must take one deer every 16 days and a female with three-month old kittens must take one deer every three days to sustain itself. This presumes that the cougar takes only deer in preference over all other prey species available.

The general public may object to sharing the land with cougars, fearing attack by cougar. Literature reports that deaths from attack by this species number about 100 in the period from 1890 to 2004. California has had 16 fatal cougar attacks in that period and most of these occurred during the past 10 years. In contrast, consider the grim statistics of death resulting from motor vehicle collisions with deer. In Michigan, the annual death toll averages 10 from such collisions. In the entire country this toll must be at least tenfold greater. One could argue that cougar populations are very low and deer populations are very high so that in a relative perspective cougar attacks could become a significant risk to hikers.

Regarding the cougar as a neighbor, I have not yet decided how tolerant I would be. Having encountered other creatures in the forest with the potential to cause bodily harm, even death, has not roused in me emotions beyond caution. Would an encounter with a cougar be the same? I rationalize that the cougar is not genetically programmed to consider humans as lunch and the risk of attack is triggered mostly by the chase instinct. My house cat will only attack a mouse while it is running.

Flood Waters Destroy History (6/2007)
original title: Trespassing

April 19, 2007, about 10:00 AM, I was seated at my desk trying to reconnect with my business after returning with my wife from our vacation in the central coast area of California. Wine tasting, sight seeing, and absorbing warm sunshine for the past nine days had dulled my senses to the effects of events during our absence. Sure, we had communications with the office during that time and we understood there had been some mildly inclement weather here. However, I had not yet fully realized how un-mild it actually was. Then the phone rang and my perspective on what happened here soon changed.

The call was from Brandy. She was in the village and had been listening to Skip Gomes describe an event in Paper Mill Village the previous Monday. She exclaimed that, although she had documented the great flood and that many pictures and stories would appear in the May issue of this paper, she suggested I could investigate the incident relayed to her by Skip. I agreed to make the investigation.

As I approached Paper Mill Village, I tried to recall my survey work on this property in 1972. In my mind's eye I could see the remains of an old mill site, a massive stone construction consisting of an array of walls on the river banks, at the raceway and at the building foundations. I remember walking across the raceway on a wooden foot bridge constructed by the landowner to facilitate viewing the river and its environs. My mind then fast forwarded to the present and I imagined what I might see.

The documents I reviewed prior to heading for Paper Mill Village made my mind's eye more attentive to evidence that may still be visible at the site. The History of New Boston, N.H. (Cogswell, 1864) lists the various mills in the area of town just east of the bridge over the South Branch of the Piscataquog River near the junction of Lyndeborough Road and Misty Meadow Lane. The Paper Mill Village place name is attributable to the fact that the site I was anxiously approaching was the site of a paper mill that operated until about 1892 per the map of the town in Town and City Atlas of the State of New Hampshire (D.H. Hurd & Co., 1892). The Map of Hillsborough County, N.H. (J. Chace, Jr., 1858) also shows a sawmill at the site.

More background information about the subject site paged through my recollection as the Lyndeborough Road bridge came into view. Rena and Charles Davis's article, New Boston's Mills and Factories (undated) credits Deacon Christy as the builder/developer, at an early date, of a water powered sawmill here and it later became known as King's mill. King suffered a setback when the mill burned in 1808; however, he rebuilt the site, first as a grist mill and second as a cooperage shop. As I turned on to Lord Road, now known as Frog Rock Road, my mind had conjured up an image of this area of town being the economic hub of New Boston because of its proximity to the Second New Hampshire Turnpike that provided a direct route to markets as far away as Boston from about 1800 until it went bankrupt in 1837.

The Davis article went on to show me the continuing importance of this site even after the turnpike went out of business. The article reports that the Union Paper Company started business there about 1869 and in 1876 it was operated by Valley Paper Company until about 1880 when a lightning strike caused a fire that destroyed the entire enterprise except for a tall brick chimney. The chimney sits firmly in my memories of the

1950s and 1960s decade. Skip Gomes also remembers the chimney and says that it was taken down in 1964 by Page Bunker because of the potential hazard it posed to the house he proposed to build in 1964.

Slowly I drove down Lord Road, a narrow gravel way bordered by large trees. The road was just as I visualized it would have been in the early nineteenth century, lacking only teamsters hauling goods and raw materials to and from the industries that operated at this site including a wire factory erected by Holmes, Kendall, and Crombie; followed shortly thereafter by an axe and hoe factory that within a few years was made into a carding and clothing mill by John Gage and operated by his successor, Marshall Adams (1845). In close proximity to these industries Moses Woods operated a gun and rifle shop until breech loading arms took the market.

As I looked toward the river into the mature forest of pine and hardwood, I contrasted the tranquility of the scene with my mind's picture of what it may have been about 150 years ago and was amazed that this small area could have held so much industrial and economic activity. I parked my car, put my notepad in my vest pocket and dead-reckoned my course toward the scene of a presumed atrocity.

My first step put my face up to a no trespassing sign and I realized that I was about to enter land that I did not have a right to be on. Quickly I rationalized going beyond the sign was my authority representing my esteemed editor and the New Boston Bulletin while investigating this "crime" scene. Soon I came to a walled canal which I presumed may have been a headrace bringing water power to Moses Wood's rifle shop. There was water in the raceway, but no evidence of a tragedy. Beyond the headrace I walked carefully up on a large ledge knob that offered a view of the massive structures of grey stone and the river, not as quiet and serene as its surroundings. Now I was beginning to see evidence of a violent struggle, my pulse quickened and my eyes strained to search out survivors that could respond to my interrogations.

Cautiously I stepped over the fissured surface of ledge pocked by bowls carved by gravel swirled round by water currents for millenary. The quiet upland forest had given way behind me to a more noisy riparian forest of small red maple and ash trees with an understory of iron wood and silky dogwood. Many of these were injured but were hanging by their roots to fissures in the ledge. They feebly told me that a thunderous wall of water had run them over. Maple trees were bowled over completely with their root mass vertical rather than horizontal. These individuals had been murdered. Despite the implications one would draw from their name, even ironwood trees had been plucked from the shallow soil and thrust against trees that somehow managed to stay upright.

While moving toward the large stone structure at the river, I scanned the scene from side to side and noted more tree roots laid bare. I approached the spillway from the down-stream side, drawn by the thunderous cascade that dominated the scene. The great wall of the dam structure on my left was at least 8 feet high; across the spillway a bank wall stands 10 feet high and about 20 feet down stream it stands nearly 16 feet high. There was no visible damage here, except that the wooden walkway across the top of the spillway was gone.

I then crossed to the upstream side of the dam structure; there to find much more evidence. The most heart wrenching sight was a gaping cavity that had been brutally torn from right wall of the spillway! I estimated the void to be about 12' by 12' by 7' high. I was awe struck by thinking of the force that must have been thrust against this wall to remove the granite boulders that may have weighed 60 tons in all. I sensed that the earth must have trembled when the granite blocks were swept away. Feeling queasy about this thought, I turned upstream to view the river and old mill pond.

The noteworthy observation about this area is that it had been swept clean of the usual forest duff. Clean cobbles, stones, and gravel had been deposited in bars over that surface. The sweeping had taken place right up to the earth berm that had been built to contain the original mill pond flowage. Logs, trash, and parts of

structures carried from unknown upstream origins were perched in eerie places such as in tree tops and on the dam crest.

Having seen enough of the destruction, I walked humbly back to my car. Summing up my thoughts I noted that a forceful trespass caused much damage to a place of many memories: a benchmark for our community's cultural heritage is the victim. The no trespassing signs had not prevented the incident; the spirits of the clever men that built those great walls had not prevented it. Even the mighty roots of the forest could not hold against such a force.

The perpetrator is the river. Or, is the river telling us that every person on earth is the perpetrator? We all contribute to the cause of climate change resulting in the recent weather extremes. Or, is it the dynamic cycles of the earth over which we have no control?

Runaway Worms Can Be Harmful (7/2007)

You know how it feels when you are given facts that seem to prove much of what you have learned is wrong. It is humbling, disconcerting, and unnerving. This is especially so if you are a consultant advising landowners on matters relating to the use of their forest land, as I have been for over thirty years. Today, I am thusly disposed after reading studies proclaiming that the lowly earthworm is not the good friend that it was, until recently, believed to be.

My adoration of the earthworm, a generic term for the many thousands of species found in most biomes all over the world, began as a youngster growing up on the farm. Every day I encountered earthworms, in the manure pile, in the compost pile, in the garden soil, and in the mulch that I helped my grandfather put on grandmother's perennial beds. My Uncle John taught me how to catch night crawlers by stepping softly across the lawn, scanning the ground with a flashlight, and quickly snatching the critters with my fingers before they could vanish into their deep burrows in the soil. We would catch hundreds and keep them in a box of soil mixed with composted table scraps. Crawlers and other species of worms I caught around the farm were my favored bait for fishing in the Middle Branch. Most of the brook trout I caught were seduced by a wiggling worm on a snelled hook. Worms can be credited for filling hundreds of buckets full of horned pout that I brought home after happy summer evenings fishing with my Aunt Bunny and Uncle John, with cousins, or with the Whipple boys.

Aside from the wonderful fish bait they provided, I heard a lot from Dad and Grandpa about how beneficial earthworms were to the farm. I carried in my mind, through adolescence, the idea that earthworms were among the best of God's gifts to man. Later in life, my college training in soils, biology, and silviculture glued my endearment to earthworms. Professors never gave students any hint of negative environmental effects caused by this lowly creature that we were always dissecting. It was all good and I became steadfast in my belief that the earthworm was a critical link in the circle of life.

Throughout adulthood I continued believing that earthworms are critical to the quality of the soil which in turn sustains our lives. By burrowing into the soil worms create vertical and lateral channels that carry rain water from the surface into the soil horizons where it is more readily available to plant roots and other soil organisms. Infiltration of rain water into the soil is an erosion control measure; earthworms contribute to this benefit by creating flow pathways that direct stormwater into the soil rather than over the soil surface where it may cause damage. Their burrows benefit plants by providing routes of easy travel through the soil horizons into new spaces. Finally, the exchange of soil gases with the atmospheric gases is enhanced by the worm tunnels. The burrowing activity alone increases the habitat value for a large mass of biological diversity residing in the soil.

There are other worm life cycle functions that I believed to be of great benefit to the ecosystem. We see only a few earthworms out of the total population in the soil. Studies have shown that about 8000 pounds of soil pass through earthworm guts each year per acre. Worms reproduce rapidly, doubling their number every ninety days. Mineral and organic matter is sucked up through their mouths, like a mini vacuum, passed through a gizzard where plant matter is ground up into smaller pieces. The mixture is then passed through the intestine and cast out as worm dung. They can produce their own weight in castings every 24 hours. In the process the worms produce about fifty pounds of nitrogen per acre each season thereby greatly adding to the availability of plant nutrients. They bring plant residue from the surface by consuming it, digesting it, and depositing it in the soil. Some worm species, particularly night crawlers, recycle plant residue on the soil surface while feeding at night.

So far in this article, the ecological facts relative to the life cycle of earthworms are those I learned while a college student and since then they have been the basis for decisions concerning soil management practices for decades. Suddenly, a feature story in *National Geographic* (May 2007) titled “America Found & Lost” (Charles C. Mann) dramatically changed the way I look at ecology, forest ecology in particular. First, I was shocked to read the author’s discussion about earthworm history and ecology. This article is a credible source for facts, as are most in this magazine, and it made reference to a scientific journal that I followed up on by internet research. That research led to a second great shock to my mind.

Learning initially that earthworms are an invasive species turned my old gray matter upside down. According to Mann earthworms may not have existed in the temperate forest of North America prior to the arrival of Europeans at Jamestown, Virginia in 1607. This settlement struggled to survive in an environment for which the first arrivals were unprepared. Of the first arrivals, three out of four succumbed to disease or starvation. That did not discourage additional boat loads of disillusioned settlers from coming and by about 1620 a critical mass of experienced survivors developed the means to sustain themselves and even flourish. Trade ships came to Jamestown, bringing plants from Europe along with other goods and then loaded up with tobacco, one of the first exports from Jamestown and a popular commodity in the old country. The settlers did not realize that accompanying the plants brought here were earthworms snuggled into the root balls. Mann presumes that earthworms entered other colonial ports in a similar way where they proliferated, and in their inconspicuous way contributed to sustainable agriculture in this country. For four hundred years since their arrival the wonderful legacy of earthworms has been praised and admired.

Second, learning that earthworms are as potentially threatening to our native forest ecosystem as the invasion of buckthorn, barberry, and bittersweet snapped my strings of rational thinking. I *Googled* Mann’s reference and read the startling results of the study that incriminates the earthworm. It was shown that dramatic changes occur to the forest where earthworms are introduced to that environment. Earthworm consumption of the usually deep litter under trees is the most dramatic cause of change. Litter is the sponge that absorbs rain and releases it at a rate that can be infiltrated by the soil rather than run off across the soil. Litter is also the favored habitat for salamander species, especially where there are pieces of woody debris in the litter. Herbaceous plant cover, including rare species, on the forest floor are dependant upon litter as a growth medium; similarly tree seedlings must start in forest litter in order to replace the native forest type.

The referenced study convinced me that the earthworm could change our native forest by its life cycle activity. Earthworms, by consuming the organic layer on the forest soil, compete with fungi that associate with fine tree roots in a symbiotic relationship. Without these fungi, tree health declines. Without forest litter soil may become eroded, more compact, less fertile, and dryer; all factors leading to a change in its suitability to sustain our native forest species. However, these soil conditions, though detrimental to native species, seem to promote successful invasion by exotic (non-native) species. I wondered how great this threat may be considering the limited physical ability of earthworms to move from their existing habitats to the forest habitat. The same study reports that worms move only about one half mile in one hundred years. Then it came to me—the human factor!

Rapid human population increase brings: housing projects into the forest; long road corridors into the heart of our native forest; more fishermen to the shores of wilderness lakes and streams, and; hikers and off-road vehicle enthusiasts deeper into the forest. Humans are bringing the earthworm from agricultural lands, where they are a huge benefit, into the forest, where they are harmful, at an accelerated rate. Though fishermen catch most of the blame for spreading worms, they are not the only “Johnny Worm Eggs”. Inadvertently, people are making islands of favorable conditions for earthworms in wilderness areas by spreading topsoil and compost on landscaped areas and on roadsides for a growing medium and for erosion control. Then, people bring to their newly converted home sites containerized plants and plants in ball and burlap that contain more earthworms.

Although it agitates me to face my ignorance about the causes and effects of our rapidly changing environment, I am comforted by looking out of my window. My surroundings are serene; plants are blooming and healthy looking; three species of birds are at the feeder, and; a forest provides a beautiful backdrop. All of this is supported by the teeming world of life under our feet. I hope my worms will not run away from home.

Local Man Looks At Ecology, Community, and Life Style (8/2007) Part One

The 1:30 meeting with Albert LaChance, I thought, would be so much different from many others I have had with Albert and his wife Carol since September of 2004, that I was a little uncomfortable. As I drove along the deep shade of Middle Branch Road, I slowed the Pathfinder so as to keep it on the gravel while still viewing the Middle Branch of the Piscataquog River that teased my attention. This moment and those of the past three years had a similar influence, the emotional attraction of the river and its immediate environs. Our relationship until this moment had been one with me as consultant to Albert and Carol, and they as clients. Today, I would be transitioning from consultant to writer of this column by conducting an interview. Interviewing would be a new approach to my writing and this could be what has made me worrisome.

At about 20 miles per hour I proceeded past Dougherty Lane, still trying to confirm questions that I would ask Albert and still reviewing in my head what it was about this newcomer that caused me to arrange this meeting to probe into his life while asking myself why I would stretch my competence by writing from an interview. Could it be a conflict between my philosophy about ecology and his, I asked myself. He had always articulated very well how strong his attachment is to the natural world—here I had found kinship and perfect guidance for my work. However, never once did he accompany me on walks over his property while I was consulting him about his subdivision. I reasoned, it is because he is quite short-legged, a few pounds over weight, a little out of condition, and that he did not want to embarrass himself by not being able to climb over brush and fallen logs they way my long legs carry me with relative ease. Of course not, I retorted to the voice from within, a man with feelings so strong would not allow physical faltering to prevent him from showing me what his land use goals were.

Ah-ha, exclaimed my inner voice, your uneasiness is tied to your paradigm in thinking about ecology. Inner voice then scolded, Bob you think the only way to look at the relationship between living organisms and non-living things is through the eyes of a scientist. On reflection, I asked inner voice; is it that species, habitats, chemical reactions, minerals, weather, landforms, hydrology, geology, and surveying form my thought processes to the exclusion of all other perceptions about ecology. Inner voice tickled my emotions with his reply; great, you have finally caught on, you may discover in your interview that Albert is on a different level than you are in thinking about ecology. Inner voice’s final remark put me in the right frame of mind for my meeting: one principle that you should have grasped by this point in your career is that everyone has a unique ecological intuition.

The LaChance driveway winds steeply up the river valley from Middle Branch Road, not a long distance, but, about halfway there were two tall saplings, one on each side of the driveway and nearly opposite, leaning over to form a perfectly symmetrical archway. Just beyond, on the right, was a small statue set on a boulder with possible religious significance. I said to my psyche as I passed through this mystical portal, I think I have just entered the aura of Albert's perception of ecology.

To regain context of thought, I quickly recalled my first meetings with Albert and Carol. I had learned that they had purchased from Charles and Kathy Houghton a lot subdivided from a larger tract owned by Kathy Houghton. On this woodland lot, bounded by Town Forest, they had built this modest contemporary home, overlooking the Middle Branch that they intend to make their lifelong home. The remainder of the Houghton land they also planned to buy from Kathy, Charles Houghton's widow. They realized that they would have to subdivide in order to fund the purchase price and also help finance Albert's endeavor as an author. I was to learn more of this change in his professional change during my consulting meetings with Albert and Carol.

While acting as his consultant on the land development project, which Albert reluctantly pursued, it had become clear that whatever environmental values I found inherent with the land were to be held inviolate to the maximum extent possible. During the planning process we readily learned that a conventional subdivision of the land would not meet the objectives, so we studied the benefits of open space development and decided on a three cluster plan. This was finally approved by all regulatory agencies. Albert and Carol were pleased that many acres of open space resulted and that there was little prospect for disturbance of natural processes, though the financial goal has not yet been attained due to a down-turn in the housing market.

I think it is beneficial to prelude my story with information about Albert LaChance that that may help in understanding his environmental perspectives. This same information helped me in that regard and following is a synopsis of what I have learned from books he gave me and from subsequent follow-up telephone calls. Albert grew up in Milford and he was first admitted to the degree of Bachelor of Arts in Art History and Literature at the University of New Hampshire. Albert is an Episcopal-Catholic and he studied Catholic theology with the Benedictine monks of Saint Anselm College in Manchester where he was admitted to a second degree in Bachelor of Arts.

In 1983 Albert went to California and studied on the post graduate level at Holy Names University in the Institute in Culture and Creation Spirituality. He admits that the teaching there of Matthew Fox and his institute was suspect theology, but that "... it is also true that one finds willingness there to speak for the whole created order in ways that it was not spoken about at Saint Anselm or in theology in general." (*Elucidating Catholic Values, Embracing Earth: Catholic Approaches to Ecology*, (p.XXI).

Going on with his educational pursuits, he studied under Father Thomas Berry, his mentor for five years, at his Riverdale Center For Religious Research. In 2000 Union University conferred upon Albert the PhD degree in Integral Psychology. Out of his educational experiences he said he has "...arrived at a position I call the New Christian Mysticism. It calls us to faithfulness to integral Christian truth, while bringing the moral power of that truth to bear on the crisis that threatens God's green earth. We can be faithful and active in the promotion of sound ecology while being committed Christians. In fact, under present conditions, to be faithful I believe we must be ecologically alive, or our Christian faithfulness is suspect."

Albert returned to New Hampshire with his wife and young family to establish Greenspirit Counseling Associates, LLC in Goffstown to pursue a practice in Addiction Counseling, Alcohol and Drug Counseling, and Unitive Psychology. In 1990 he was elected Goffstown Selectman. His practice was put aside in 2006 so that he could engage himself in an evolving endeavor as an author and lecturer. He has authored 5 books and now his publishers are asking him to write a series for them.

Albert responded immediately to my ringing of his doorbell and I was invited to sit in an easy chair while he settled in another after offering me water or tea that I passed up with a “no, thanks anyway” reply. Albert was dressed comfortably in a sweat-suit. His shaved head reflected a beam of sunlight coming from one of the several windows in the large sitting room. That image and his well-groomed goatee and soft-calming voice reminded me of a visit long ago to a psychologist for some therapy I needed. My reaction did not surprise me since I knew of his previous practice as an addiction counselor. After a few social exchanges he asked how we should proceed. I began with a question and I think he sensed right away how awkward I would be in the situation. He asked if I would like it taped and I felt more comfortable after giving him a positive reply. He stated that taping is the way he writes; he speaks on tape and his daughter transcribes it to text, a great system I thought.

I began what was to be nearly a two hour session by asking my first question, and then he deftly placed the tape in his recorder and started talking as if he was composing a book, his eloquence caught me off guard and I frantically started to write down key phrases, soon to realize that would be unnecessary.

To be continued.

Local man looks at ecology (9/2007)

Part two

My first question to Albert was poorly worded and expressed in a stammering delivery. My palms were sweating and he picked up my nervous reactions immediately. Albert spoke softly and stepping aside from answering my question, went on to talk about his books, and about his lecture series.

He prefaced his remarks by saying that most of his continuing work and his work since studying under Father Thomas Berry, center on Berry’s 12 principles for understanding the universe. Albert said he articulates the principles to 4 fields, the first was Jonah, a 1400 line poem, published in hardbound format that attempts to integrate the principles into the artistic community. The second is titled Cultural Addiction and attempts to integrate these ideas into the addiction theory field. In this book he supports his idea that what is destroying the planet is an addiction illness; an addiction to power, to oil, to greed, and to dominance. Thirdly, he reaches into psychology in a book titled, The Architecture of the Soul that promotes integration of the human into the universe process and the earth process, so that there may be an inter-cultural understanding of ecology.

His next book comes out in November and it is The Modern Christian Mystic. In this book he will try to integrate the same set of ideas into the Christian community and he warns that his arguments may be controversial. He says that one point in the book is, “...that in a strange way, ecology is the problem, because it separates the main stream, in their religious thinking, their psychological thinking, their addiction thinking, and their artistic thinking, from the actual work of integration of the human into the life community.” This rang true in my observation that until recent times science and technology have been vitally linked to the vigorous conquest of nature; long considered the ideal of civilization. I was bothered by Albert’s remark, “...ecological understanding never gets into the main stream thinking, it’s a private language used only by practicing ecologists and we see the worst results of this disconnect in people at the highest policy-making levels of our government. Because ecology boils over into morality, it boils over into sociology, it boils over into every field there is, and it needs to be integrated into all the other fields so it just becomes the way we think.”

At this point in the session I sensed that it would be better to just let Albert speak, then I would write my column from the salient points that he puts on the tape. This decision released my tension.

Following is an abstract from his ideas about ecology that grabbed my attention. “The whole idea is that you can not have a sane species in an insane context. You can not have a healthy species in an un-healthy context. So the environment and the planet is the larger self: if I destroy my water; destroy my air, and destroy my soil, then I will have destroyed myself. The more that we try to pretend that there is such a thing as *out there* we remain deluded; *out there* is in here. That Piscataquog River, out there, is flowing through my veins.

This is part of the river system. I can say that I can dump my garbage in the river out there and it is going to flow downstream to my neighbor's house and not be my problem, but my well is also part of the river system and I may also spoil my well. I am drinking that river and the water is in my veins, my veins are little rivers, little Piscataquogs."

"I think another idea is that we need to hear about the planet through the collective moral institutions, churches and temples, instead of hearing about how Jesus wants us to be rich and drive a Hummer to be in God's favor, instead the real gospel message should be how we can be of service to the poor. Right now the poor are the other animals. In Hebrew, *anawim* means the little ones, so the Hebrew prophets, leading up to Jesus and including Jesus, talked about service to the *anawim*; to the little ones, and by that they meant the orphans, widows, poor, blind, and lame. That's why Jesus made a big issue out of healing those people and rubbing shoulders with them. But the *anawim* now are the other species. We eliminate unknown numbers of species from the life community each year and speciation is not keeping up with extinction. We were balanced about the time of the industrial revolution, but now we are going out whole pieces of our ecosystem. We are giving Nature a lobotomy; we are carving out part of Nature's ability to function creatively. If that's not sin, if that's not sin, then I would like to know what is."

. Albert's previous statement was very passionately stated following which he relaxed his tense body and took a deep breath.

"The universe, the life community, the human culture are all part of one developmental system that emerges out of mystery, out of the mind of God. It is all one thing. This is the primary premise of what I learned from Thomas Berry. I heard him speak Feb 8, 1984 and became overcome with grief, and sobbed. Later I diagnosed this as ecological grief. There is a lot of talk about adolescent depression; it is a grief that the whole life community is experiencing and it is pouring out through them. I got in touch with my own grief and after the event I went up to talk with Father Berry; like a child I said Father Thomas, I must talk with you, and I was shocked when he replied, 'yes Albert you must'. When Thomas returned east in 1985 I met him and set up a study program with him that continued until 1995. During that time Thomas transferred the principles of his life's study to me. It was like I wanted to play the piano and Beethoven gave me lessons."

"Thomas Berry's principles hold the key to the future of the planet; I would say that he is one of the greatest living thinkers on the planet...one of the greatest synthesizers...he created for us a reason to believe in the future, the ecozoic. He sees the future as a new integration of the human and the earth as the ecozoic era; an unfolding of life on earth in a new way. Berry says that human culture is at a transition from **the cenozoic** to the ecozoic era. We are making up our minds to enter a new age of human development integrating geological and biological elements of the earth. **We need to move to a higher level of consciousness where we all recognize that we are one interdependent species on one planet.** Thomas gave me all of this free in his mentoring...he would not even let me pay for meals when I visited him. We ate all our meals out so that we could keep talking. One day we ate at a diner and he told me a story about when Confucius was dying. While his disciples were gathered around him, Thomas said, they asked, 'Master, you have been a man of many words, how would you reduce all of your thinking into one word now that you are passing.' Albert paused before relating the rest of the story. "Then with a twinkle in his eye, Thomas spoke to me reverently, 'the word is reciprocity'. Thomas emphasized the story by telling me 'this is the one word that contains all wisdom, everything has to give to everything else, reciprocity'. Finally, the check came and Thomas reached for it, but I grabbed it while saying that word, reciprocity." Albert and I laughed at his happy memory of Thomas's story.

The tape recorder clicked signaling that the tape ran to its end. Both of us were tired at this point and decided to keep in touch and discuss this subject in the future. I thanked Albert for his time and for invoking deep thoughts within me about my own values that were forged right here in this neighborhood along the Piscataquog River. Along the road toward home, I recalled feelings that have been with me since childhood, mainly those before I studied ecological science. I had always been awed by the life I observed in the natural world around me. In those times I knew, somehow, that whatever helped the little life forms that were my companions on long summer days was good. Whatever did harm to them was not good. This intuition and core value reinforced my studies and my life's work.

However, my session with Albert LaChance has taught me that the values and work of the scientific community must be integrated with the work of religious and educational communities and institutions if my experiences as a child are to be shared by my grandchildren and generations thereafter. I was impressed by Albert's steadfast effort to bring the scientist, educator, and mystic together in one vision of the earth.

P.H. Saltmarsh: Linch-pin of Local Economy (10/2007)

Muskmelons in the garden at Todd's Corner were exceptionally pleasing this season. The melons thrived during the hot dry month of August with some irrigation to fend off fatal wilt. Juicy, pleasantly fragrant, sensuously tasteful, and large are words that describe the experience of picking and eating a melon.

This column is not about our melon crop, but it is a good lead-in for the story. Each time, for the past three weeks, that I spooned the last dripping morsel of delightful orange flesh from a melon shell memories of my youth sprang to mind. These clear memories center around the melons I first tasted, raised by a man I admired and who was the nucleus of my experiences during the summer and fall of my early teenaged life. Because I was young I did not grasp the importance of those times, which I am sure influenced the life I have; however, the implications grew as my perception of the economy and ecology widened.

Paul H. Saltmarsh was an impressive man. Not only was he large in stature, but large in his demeanor. Most considered him a character, and he would be so considered today. I remember that he always wore a wide-brimmed felt dress hat, a mustache, and glasses. His pants and shirt, though always stuffed with pencils and note pads, were dressier in style than those worn by men he associated with. This set him apart in my mind, very business-like I thought. His voice could be as loud as a fog horn and of the same, deep bass tone; it was fun to hear him speak.

My thoughts about this always amiable character have also been congealed by recent readings which include a story about rural development in Vermont, but it could be about the economy in New Boston. The Vermont Council on Rural Development promotes what is called a "creative economy". As I understand from reading the column in the Valley Business Journal, September 2007, the group is trying to link the arts and other innovative and creative local enterprises so as to develop a community economy that is closed to the greatest extent possible. The idea is likened to a closed ecological system where the flow of energy and mineral matter cycles in place continuously. The watershed of one small tributary to the Piscataquog River may be an example of a nearly closed ecosystem. Paul Saltmarsh was an innovator and he played a significant role in maintaining the local economy.

Paul's early entrepreneurship and education honed his skills in business management and marketing. He and a partner owned and operated a produce market in Somerville, Massachusetts called Kingsbury-Saltmarsh Co. Inc. This business introduced him to the big produce markets in Boston. Here he learned how to make a profit selling produce even during the depression era. This experience and business training at Hesser's College in Manchester prepared him for his future role in New Boston.

Reed McLane, Paul's uncle, owned the old mill, now the home of Gail and Randy Parker on Mill Street, and operated an agricultural supply store during the early 1920s until he sold the business to Merrimack Farmers Exchange. Reed knew the new owners would need a manager and he convinced Paul to come to New Boston to apply for that job. Paul was hired and soon settled into a house on Mill Street with his wife Ruth. He managed the Exchange store and began a number of other local business enterprises. His enterprises grew quickly and in the mid 1940s he resigned as manager of the Merrimack Farmers Exchange to engage himself fully in his own business.

Paul Saltmarsh's prominence in the local economy sprouted in the late 1930's and grew fast after World War II. He then purchased a Boston and Maine Freight delivery franchise, purchased trucks and hired local drivers to haul freight from the railway depot in Goffstown to points of delivery in New Boston and Weare. The little building across Mill Street from the café, formerly Abigail's Bakery, was the New Boston depot for the Railroad Freight business that Paul operated.

Soon Paul realized that the freight delivery business integrated successfully with his other enterprises. Here come the melons. A 1937 newspaper clipping furnished to me by Hazen Saltmarsh, Paul's son, reports that Paul shipped 75,000 melons to Boston markets and had been doing so all during the depression years. Hazen, known by most as "Salty", told me that his father picked up the freight in the morning, then loaded the same trucks with crates containing melons packed tightly with new mown hay and delivered them to Boston markets in the evening, often arriving back in New Boston about midnight. This was perhaps the first "second shift" work force in town. The news article went on to claim that Paul's melons were the only New Hampshire melons on the market at that time.

Melons and freight delivery were not the only enterprises that Paul Saltmarsh was known for. Others involved my father and many other men in town as sub-contractors. Fuel delivery was one enterprise that Paul managed during the fall and winter months. I often went with dad when he worked for Paul. Four-foot long firewood harvested on Paul's woodlots was trucked to markets around town and out of town by my father on Saturdays during the fall. The firewood had been harvested the previous fall by French Canadian wood cutters. Some of Paul's wood customers needed stove length wood delivered to their home and my dad's services were contracted to saw the wood into stove length and to deliver it to customers. With local laborers assisting him, Dad used his home-made saw rig powered by a Ford Model T engine to buzz up the wood. Dad also delivered coal to Paul's customers in the fall. Joe Thompson, the local welder, retrofitted dad's truck with a coal chute and special tailgate to facilitate delivery. As I recall, Paul would buy a railcar full of coal which was delivered to the freight yard in Goffstown and sales were made directly from the yard.

The enterprise that made Paul Saltmarsh most widely known may have been the cider mill. The Saltmarsh Cider Mill was formerly owned and operated by the J. R. Whipple Company and it is now the home of Eileen Belanger and the New Boston Center for the Arts. The old cider press is still intact and operational on occasion. Paul purchased apples from local orchards and filled the upper level of the mill with boxes of apples that he would grind into small pieces from which the cider was pressed. The apple residue, pomace, was sold to local farmers, including dad, for use as cattle feed, and the cider was bottled and sold to distant markets or retailed locally from the mill. A large part of the apple juice was pumped into old whiskey barrels Paul purchased from distillers and these were stored in the large, cool cellar of the mill. There the juice was allowed to ferment and turn to vinegar, though it has been said that a few choice barrels were bottled up before the juice turned to vinegar and was sold as apple wine (more commonly known as hard cider).

Apple syrup was Paul Saltmarsh's personal recipe and he is believed to be the first to successfully market the product. A newspaper clipping dated February 20, 1949 credits Paul with inventing the product and I would not doubt it. He and his wife Ruth processed the apple juice in the mill building by adding secret ingredients, boiling it down to syrup consistency, and bottling it hot in glass jars. This endeavor continued for at least a quarter century and the syrup was sold nation wide. I have used apple syrup on pancakes in place of maple syrup; luscious.

It is interesting to think about the economic contribution that Paul Saltmarsh made to the town in his several innovative pursuits. Using my father and family as an example of how one dollar paid by Paul to dad may have circulated through town. Let's assume that dad spent 25 cents for groceries at Dodges Store, 10 cents at Daniels Garage for fuel, 25 cents for feed and supplies at Merrimack Farmers Exchange, 5 cents at Doctor Fraser's for medical attention, 10 cents for local taxes, and 5 cents to Joe Thompson for equipment repair. The total amount of that dollar spent in town is 80 cents. If each person or business to whom my dad made

payments distributed money in the same proportion and in the same local establishments, the Saltmarsh dollar would have circulated locally about 5 times before leaking to outside economic systems.

I thank Paul Saltmarsh for his innovations and the opportunities he generated for self improvement in this community and I thank the innovative businessmen in town that are perpetuating Paul's example. Creative economy building may be the key to meaningful life, if not to survival in this world of diminishing resources.

Getting to Know Great Grandpa (11/2007)

It is not unusual for one to personally know a great grandparent, at least through early childhood years and a blessing this is for great grandparent and child. There are circumstances in family life that preclude one generation from having a personal relationship with parents of one's grandparents. War, sickness, family migration, and just plain chance work to minimize the likelihood of happy relationships between the very old and the very young from double generation jumps.

My great grandfather was born in 1820 in the house in which I now live and he died in 1916 in the same room in which he was born. This fact is un-nerving at times because his presence is so obvious in the house and on the land. The furniture he used, his pictures on the wall, his clothing still stored in trunks in the attic, and his letters filling several boxes bring me close to his soul; perhaps as close as if I had known him personally. The land at the Todd Homestead reflects his hands' work; the garden is in the same location as when he and his father established it over 150 years ago. The hay fields are harvested annually, though he raised crops on them in his time. The red cedar in the back yard stands today where a picture, taken about 1890, shows it head high against great grandpa. I love this cedar tree for its company and its living connection to a person that I have also come to love.

Of course, a personal connection with him, in reality, is about as remote as it could possibly be. My Great Grandfather, James P. Todd, was 48 years old when my grandfather was born; my grandfather was 41 when my father was born, and; my father was 31 when I was born. The last born son of a last born son situation factored me out of ever knowing my great grandfather by 24 years, a time period that could be considered equal to one whole generation.

There is a significant number of local residents (I have not been able to count them) that are descendants of the man I am introducing in this column and they are all related to me at various levels of kinship; cousins, sibling, son, grandchildren, nieces, nephews, grandnieces, and grandnephews. Even with my minor interest in genealogy these relationships are mind-boggling, but it is for them, primarily, that this is written.

I would have enjoyed sitting down with great grandpa and listening to his stories for hours. Often I ask myself: would I have remembered his stories, or have I learned more and come closer to him by reading his words, the words of others, and by each day placing my hands and feet where he placed his hands and feet each day. This house is full of stories told by him and by others, principally by grandmother, all of whose 36 diaries I still have not studied. But, in the 40 years I have lived in this house I have listened to many of James P. Todd's stories, some of which I have documented for family reunions, previous issues of this paper, and for presentations to the New Boston Historical Society. Most recently, I made a presentation to the New Hampshire Land Surveyors Association at its annual Case Studies Seminar. I researched court records and family records to learn the details of a case decided in the state's highest court in which great grandpa was the defendant. In the process I think I have come to know more about him and to have deeper feelings for him than ever before.

Court records in the case of *Andrews v. Todd* are quite specific about matters of law relevant to that time, but for me it was full of inferences about the character of the families that were involved in the case.

These inferences are supported by the stories that great grandpa had already told me in his own written words and by relevant deeds and histories I had read. This story is set in the cultural and economic background of two families, the Todd family and the Andrews family which had lived together in close proximity for over 70 years. Their well being was mutually tied to the land and to the South Branch of the Piscataquog River.

The Todds were farmers and craftsmen. James's father, Samuel, was a shoe maker in addition to being a farmer. It is possible that Samuel provided shoe making and repair to the Andrews family members. On the other hand the Andrews family had a water powered mill on the property now owned by Dan Teague on East Colburn Road. Chairs were the principal commodity manufactured there, however, it is likely that a sawmill was an important adjunct to the chair manufacturing endeavor. The Todd family would have certainly benefited from the Andrews's enterprises. Following James Todd's return in 1852 from Columbia, California, where he and his partners from New Boston operated a gold mining claim and a spring, he invested his substantial gold fortune in remodeling the old farmhouse, building a new barn, establishing a blacksmith shop, and purchasing a water powered mill downstream from the Andrews's mill site.

In addition to this economic circle there was a cultural component of their commonality. The Andrews family is believed to have been instrumental in establishing a Baptist Church (no longer there) on a property situated at the southeast corner of their farm which is known as the Hersey place, sold recently by Phil and Jane Workman to the Knight family. This church lot, containing one half acre surrounded by walls, is on the westerly side of Thornton Road just northerly of the Michael and Brenda Humphrey home. Issacher Andrews, Sr. was a deacon in that church. While other neighborhood families may have been associated with the Baptist Church, the Todds were members of the Presbyterian Church situated in the upper village in New Boston where James was a deacon. The relationship between the families was friendly, cooperative, and symbiotic for many prosperous years.

Issacher Andrews, Sr., died in 1862 at age 81, and was buried in a small chained in burial plot beside his wife Abigail. The emotions tied to this small cemetery, located near the Baptist Church lot, seemed to be what changed human affairs in the neighborhood. The five Andrews heirs, four brothers and a sister, conveyed the family farm to brother William in 1863 except for three quarters of an acre centered around the burial plot that they kept as a family graveyard. William Andrews did not keep the farm long and sold it to James P. Todd in 1865. James operated the farm and raised hops for sale by the bag to the breweries in Boston after they were dried in the hop kiln built on the farm by the Andrews family. James set the poles on which the hops entwined, like pole beans, in the field next to the Baptist Church lot and the Andrews family burial ground.

Issacher Andrews, Jr. lived in the saltbox house across the street from where the Humphrey family now lives. For several years, Issacher, Jr. made an issue of James cultivating his hops so close to the grave site and argued with James about where the boundaries were located. These arguments became heated and in 1869 Issacher carried out a threat to sue James for trespass upon the family burial lot. The case was heard by the trial court and the jury decided in James Todd's favor. However, the Andrews heirs made an appeal to the higher court in 1870 which upheld the trial court and ruled in James's favor.

In the two years following the appeal court's decision there was a cool breeze blowing over the neighborhood, families snubbed each other and the economic ties were broken. Cultural relations between them also iced over. I believe that great grandfather, even though high on his principles, realized that he could and should do something about the situation. Therefore, he offered to buy the land that the Andrews family had claimed, this was not to secure his title to the land; the court had done that for him. I believe that James did this to restore friendly relationships in the neighborhood and to give back to the Andrews family a part of what they had lost. I can see that James was looking after himself some by putting a condition in the deed from the Andrews family. The condition was that the remains of Mr. and Mrs. Andrews be removed and reburied in the central cemetery in the village.

I do not know if there are any of Issacher Andrews's descendants in town now, but if there are I hope no ill will is born by them. As for knowing my great grandpa, this story has added greatly to my relationship with him, true to his patient efforts in the past 40 years, he has again left me a memory. I look forward to finding his next hiding place.

Weighing Up the Local Trade (12/2007)

Inspiration for this column comes in serendipitous ways. An article or book I have read often causes a story to fall out of my mind. Local discussions around the "cracker barrel" also conjure up ideas for my articles. Just plain experiences of living sometimes flow through my fingers onto my keyboard and end up in front of your face. Less often questions put to me by people I see in the village and around town generate thoughts which also expand into stories. I wonder if people have these questions in the front of their mind to ask me the next time we may meet.

One such question was directed to me by Dan Donovan Sr. while at the transfer station one Saturday. He asked, "what is that box with the words 'Fairbanks Scales' on the small white building standing on the triangle between the roads in Francestown village?" This question was put to me followed only by a quick greeting, "hi Bob, I've got a question I have been wanting to ask you". I gave him a short descriptive answer that satisfied him, but it caught me by surprise because I have always taken this interesting piece of Americana, essential during an era past, for granted. Immediately, Dan's question became a story.

The hay scale, as it is known, is a platform scale used to weigh vehicles loaded with potatoes, squash, corn silage, cows, horses, poultry, manure and possibly other trade items that were produced locally and sold locally. The basis for payment, or for barter, was the weight determined by this scale and hundreds of other scales like it throughout the country where agriculture was the driving force in the economy. Nearly every community in this area had a platform scale.

Most of the scales used in this area were the invention of the Fairbanks Brothers. Thaddeus was a mechanic and builder and Erastus was a wagonmaker. The two had established E & T Fairbanks Company in St. Johnsbury, Vermont where they invented and manufactured cast iron plows and stoves. Their broad vision and manufacturing skills coupled with a keen sense of marketing steered them into the endeavor for which they are most famous; the manufacturing of weighing systems. Although Fairbanks made weighing systems for many applications, from apothecary scales to scales for weighing vehicles, the second type is the subject of this article.

The huge Fairbanks scale consisted of an array of levers so connected as to tremendously reduce the amount of weight needed to counter balance a large load. The large lever arrangement was placed in a pit with a wooden platform securely attached to the lever system. The counter balance was in a small wooden building, or in an adjacent building which protected the works from the elements. The scale in the sheltering building was calibrated to read directly in the appropriate graduation to suit the needs. Some of the local people that used the Francestown scale could not remember what the smallest graduation is when I asked them. According to Howard Towne of New Boston, the scale that was once associated with the Merrimack Farmers Exchange store on Mill Street in New Boston where Gail and Randy Parker live was graduated in pounds.

Typically, the Fairbanks Scale developed for weighing loaded vehicles had a wooden platform about 18 feet long and about 8 feet wide. I measured the platform in Francestown with a tape and it was 18'4" long and 8'6" wide. I observed that the scale platform in New Boston is slightly smaller; it being 18 feet long and 8 feet wide. The counter weight and divided scale bar were inside of the adjacent building with only about four feet between the platform and the building. It is presumed that the scale was removed when the Merrimack Farmers Exchange closed the New Boston store. All of the Fairbanks platform scales were set up so that vehicles were driven on to the platform and weighed without a load, then weighed again while loaded with the commodity and

the difference equaled the weight of the load. Often horses and cattle were led or driven on to the platform and weighed directly, subtracting only the weight of the animal's attendant.

My father operated a small dairy farm with a herd of six to ten head of milking cows which he milked by hand. But this farm was too small to produce income sufficient to support the family. Therefore, he did custom farm work and trucking to supplement the family income. While dad was engaged in these endeavors I rode with him in the old 1936 Ford dump truck that he owned. It was during that time in my life (it is likely that I was 7 to 12 years of age) that I got to know the routine of agricultural trade and barter in the area. My recollection is that my father used the Fairbanks scale in Frankestown mostly to weigh hay that he was selling, or that he was trucking for someone else. He would drive on to the scale platform and I would stand near the platform and wait while he walked across the street to Minnie Miller's door (Minnie lived in the large yellow Woodbury homestead on the westerly side of Main Street, now owned by Allan Thulander). Minnie came out right away, even though busily making bread as evidenced by the white flour still stuck to her apron. She amiably operated the scales and registered the weight in a log book she kept inside the small wooden structure next to the scales.

Minnie Miller, Herman "Bing" Miller's mother, charged 10 cents to come out and unlock the shelter and operate the scales even though it interrupted her household work. I called Bing to ask him when the scale was installed in that location and he could not recall, but presumed it to be before 1940. Then I called Minnie's grandson, Gerry Miller, and discussed the scale with him. Gerry is very interested in history and thoughtfully suggested that town reports might yield information and he agreed to study those he had in his possession. The very next day he made a special trip to my home from his home in Hampton to give me information that dated the installation of the scale.

Gerry's information was taken from a copy of the 1909 Frankestown report he had in his cellar. There were six entries under the heading 'Hay Scale Statement' for monies paid out to people for labor and materials for building the scale. This means that the scale was installed in 1908. It is interesting to note that two payments were made to New Boston firms for materials: one payment to George Marden for lumber to build the scale box, and a second payment to Read Brothers for chestnut lumber (I believe the chestnut lumber was for the platform). Gerry's research also shows that the town funded repair of the scale in 1934 and again in 1954.

The booklet A Walking Tour of the Public Buildings of the Village of Frankestown, New Hampshire, published by The Frankestown Improvement and Historical Society (FIHS) in 2005, states that the scale has been moved from its original location. A picture of the scale box in this interesting book has been reprinted herein with permission from the FIHS chairman, Charles Pyle. FIHS funding restored the scale in 1999 and it is now attractive monument to the significance of local agriculture and economy in the first half of the twentieth century.

I have found no documentation about the New Boston scale so there is only my memory and other memories offered by Hazen Saltmarsh and Howard Towne. Hazen Saltmarsh said that the scale was operated by staff of the Merrimack Farmers Exchange, but that his father, Paul Saltmarsh, was the most frequent user when he was in the coal business. Howard Towne recalled that his father Fred Towne weighed loads of hay at this location. Other towns with scales that I remember my dad using include Goffstown and Milford.

Thankful I am that the FIHS has taken over stewardship of the Fairbanks Scale on the southerly end of Main Street. I fear that other scales will not be rendered the same degree of care and they will become additions to the list of obliterated heritage in Eric Sloane's Our Vanishing Landscape, Ballantine Books, NY (1955).