To illustrate the fun that we “seasoned adults” have in the Fairbanks activities of the Osher Lifelong Learning Institute (OLLI, “The Health Club for your Mind”) I draw upon an OLLI course in which I was a student in 2012.

Bill Schneider, retired Oral Historian from Rasmuson Library at the University of Alaska Fairbanks (UAF) taught a course on “Signature Stories” for OLLI. Bill stimulated students to think about and actually tell stories that each of us might share to illustrate memorable events and life-altering lessons.

This is my signature story, on “The Great Whaling Catastrophe at Barrow.” It features a community leader who elected (recently) to retire here in Fairbanks, in this case, Ted Fathauer (“Fairbanks’ Favorite Weather Forecaster”). He found the key piece of missing information which in 2000-2001 was perplexing a group of both scientists and members of Barrow’s whaling community. Ted was collaborating with us at the time on an interdisciplinary project funded by the National Science Foundation.
Before Osher Lifelong Learning Institute’s Fairbanks Chapter got its start in 2001, key people had shown that Fairbanks was a stimulating community, a hotbed of ideas, in which to spend their still-productive retirement years.

After Dave Hopkins retired from the U.S. Geological Survey’s Alaska Division in Menlo Park, California, he was drawn here to Alaska, and specifically to UAF. From 1984 to 1999, he was an active fixture of campus life and intellectual ferment related to Quaternary Alaska and the nature of Beringia. This picture of Dave, from the early 1990s, captures the inextinguishable enthusiasm with which he infected colleagues and students near and far. Can’t you just sense the fun he was having, doing field geology while driving along a beach on the Seward Peninsula on this 3-wheeler? Brings to my mind the adolescent Dave Hopkins executing flying switches with a steam locomotive on a railroad spur line in New Hampshire. That’s where he grew up, and where he honed skills of listening and learning from local experts. Dan O’Neill’s book, “The Last Giant of Beringia” is a great read.
Barrow is one of three whaling communities that specialize in harvesting bowhead whales from hunting perches along the outer edge of landfast ice in springtime (late April to early June). The harpooned bowheads are towed to the ice, hoisted by block and tackle onto the ice, where they are butchered. From the ice, portions of the whale are parcelled out to crew members and helpers. Here, the captain shows his kids the whale that has just been hoisted onto the ice. His banner is in the background, where it signals the successful harvest and landing of a bowhead.

Bill Hess, photographer and chronicler, lived in Barrow for key years in the development of that community’s identity and political effectiveness. He was a privileged observer of the subsistence bowhead whaling culture and Traditional Ecological Knowledge (TEK) of that community. Among other things, Bill was an on-hand observer and photographer during Barrow’s great “gray whale rescue” of October 1988. Do you remember that 3-week adventure? And how it riveted attention by the international media?
What brings the bowhead whales to the coastal communities in NW Alaska is the persistent flaw lead of open water in sea ice; that lead parallels the coastline in the northern Chukchi Sea from Point Hope, past Wainwright, Barrow, and on to the NE in the Beaufort Sea. The whales use this lead to support their spring migration into the Canadian Arctic Archipelago, where they spend their summer months feeding, after which they head back toward the Bering Sea to overwinter.
Barrow’s whaling community was deeply affected in the mid-late 20th century by a sudden, unexpected event, sometimes called an *ivu*, or ice-override. In relatively clear, calm weather, a destructive wave, comparable in magnitude to a small seismologic tsunami, swept northeastward along the outer edge of landfast ice. That normally stable ice broke into fragments. Camps, tents, tethered dog teams, skin boats (*umiat*), weapons and whaling crews then out on the ice were threatened. Crew members had a few minutes’ warning, as the word raced from camp to camp that everyone was to run for shore, not to look back, not to try to save equipment, dogs, or other people, but only to try to save themselves. Miraculously, no human lives were lost.

Ted Fathauer and others, consulting National Weather Service Archival records one early morning in Barrow:

**PROBLEM**

Between 4th and 7th May, in some spring whaling season between 1946 and 1971, a tsunami-like wave from the south engulfed Barrow’s whaling crews out on land-fast ice. Half of Barrow’s whaling gear was destroyed (half of the dog teams, weapons and boats lost) but whalers themselves all ran to safety. Subsistence whaling at Barrow recovered very slowly, with some crews unable to resume whaling until the early 1970s.
A linear representation of time ("time’s arrow") is not the only way to keep track of events. But it is handy if you have a particularly long record to deal with, and one that is punctuated by non-repeating occurrences.

By contrast, for example, a cyclical record of time stresses the repetition of events that may go full cycle with a day, a lunar cycle, or an annual cycle. Cyclical representation allows us to compare differences in seasons between two places on the globe for example.

For a historical record, we can figuratively mash a thousand annual cycles into one line, then pile 10 of these mashed millennia atop one another, then pile another 9 piles of 10 millennia each…
People elsewhere than in our own Mediterranean-centered (or other agriculture-based) societies often regard the passage of time as more cyclic than linear. This is the late Kenneth Toovak, Sr., one of my mentors and heroes, a lifelong resident of Barrow. He was not a whaler, but whalers relied on him as a shrewd observer and chronicler of how sea ice formed every year in the autumn, then how it changed during winter, and its dynamics during the spring subsistence whaling season. In Kenneth’s analytic approach to time, you could think of his construct being like the analog clock on the wall behind him. That clock would have just the small hand, completing its 360-degree sweep once a year (365 days).
Ted Fathauer was not discouraged. Twenty elders’ best guesses as to the year (“Time’s Arrow”) in which the great Ivu occurred ranged over about 25 years from “Just as WW 2 ended” to the year of “Native Claims Settlement” (~1971), but Ted focused on the tight agreement among whalers about the time of year (“Time’s Cycle”).
Ted, the optimist, reasoned as follows: If you take a yearly cycle and split it into different sized chunks, the “end of the first week in May” is about 1 percent of the annual cycle (4 days out of 365 days). At the end of a long day of conferring in Barrow, Ted pronounced brightly, “This is a manageable problem. I bet I can solve it to everybody’s satisfaction before breakfast tomorrow morning.”
We think of waves as “breakers” pictured here, from surfing in places like Hawaii, Australia and Portugal. But long-wavelength waves, such as ocean-crossing tsunamis, diurnal tides, and waves generated by unusually violent wind storms rarely produce these curling, breaking crests. Instead, crests pass at high speed and actually move masses of water forward as they progress. When these long-wavelength surges come into shallow coastal waters, they pile up, such that the depth of water increases sharply, but usually without a breaking crest.

The rest of us at the meeting in Barrow did not know it at the time, but “Fairbanks’ favorite meteorologist” suspected that tsunamis and diurnal tides could not be blamed for the 20th century’s most serious whaling catastrophe at Barrow. He therefore believed that a meteorological explanation was worth investigating. Probably nobody but Ted Fathauer could have known, in March 2000, that the National Weather Service archives at the Barrow forecast office held a good and complete record of hourly surface observations going back to the 1930s or 1940s. Ted knew where and how to look for evidence of a violent weather event. He thought he could explain a sudden breakup of shorefast ice at the end of the first week in May in some year after WW II, but before 1971.
Ted, with the help of another meteorologist found the culprit: a rare hurricane-force wind field just south of Bering Strait. So here, from beginning to end is a summary of Ted’s approach and his accomplishment.
Ted detected in the archived raw data two rare, steep, pressure gradients, consisting of an unusually low low-pressure cyclonic system over eastern Siberia (NE of Kamchatka), and simultaneously an unusually high high-pressure anticyclonic peak over the northern Gulf of Alaska.

If you have a low pressure cell next to a high pressure cell, which direction will the wind blow? From high to low, you should say. Imagine dropping a marble just to the left of the high-pressure peak (“H”) in this diagram. It will roll faster and faster downhill toward the depth of the low-pressure valley (“L”) sitting over eastern Siberia. In fact, Ted estimated that your imaginary marble would have gone rolling past Cape Newenham on the Bering Sea coast of Alaska at 160 kmh (100 mph)—a hurricane-force wind.
In summary, on 6th May 1957, this storm had generated 100-mph winds from the SE at Cape Newenham. Those winds piled up an impressive pulse of water that would have moved as a wave (storm surge) through Bering Strait and on into the Chukchi Sea to the north. Even in clear windless weather at Barrow, such a wave proved highly destructive of any obstacles, such as the landfast sea ice from which whalers were hunting.

Everyone agreed that we had matched the correct “cyclic time” with the correct “arrow date” by the end of this exercise.

(This conclusion—a solution of simultaneous equations—has been verified subsequently in written records kept by the Naval Arctic Research Laboratory at Barrow).

If you are motivated to learn more about whaling and ice catastrophes, try *The Whales, They Give Themselves*, by Karen Brewster, U of Alaska Press. In that book are found more confirmations that Ted Fathauer’s research was both correct and fruitful of information.
Kenneth Toovak, Sr. helped piece this story together, as he had helped with many other stories.

For his years of patience with scientists and contributions to science at Barrow, UAF conferred an honorary doctorate on Dr. Kenneth Toovak, 10th May 2003. Both the Time’s Cycle and the Time’s Arrow cultures appreciated his contributions as a keen observer.
When Karen Brewster compiled her biographical book on Harry Brower, Sr., she asked me to build the index. I had discovered a simple trick that helps sort out complicated temporal relationships in history. Modern indexing relies on alphabetic sorting that is routinely accomplished by common software, including Microsoft Word for Windows. But dates attached to historic events can also be sorted. As I had done for other books, I made entries for dates in Harry Brower, Sr.’s life as they were mentioned in Karen’s text.

Note that Harry is widely considered the greatest, most influential of 20th century subsistence Umealit in Arctic Alaska. Although the University of Alaska Press edited out all the date-based entries of my index (for being “unconventional”) I found in those dated events essential insights to Mr. Brower’s actual career span. He started whaling in 1939 at age 15. After 3 seasons, he served in the military for the next 4 years. After WW II, he whaled for 10 seasons, then lost his gear in what Ted Fathauer helped us identify as the 1957 Ivu catastrophe. In 1957, Wage-earning drew him to the Naval Lab that same year. But while busy raising children, he could not save enough money to acquire gear or dog team resources sufficient to resume whaling until 1972, after 14 years at the Research Lab in Barrow. Ill health forced Harry to retire from whaling in 1980. He died in 1992 at the age of 68. Out of a potential career span of 53 years (68 minus 15 yr), Harry actually whaled for only 25 whaling seasons (47 percent). Its brevity makes his career all the more impressive. But then, consider his retirement: 1980-1992 was when Kupaaq achieved the peak of his influence in helping western scientists think carefully about whales, their population biology, their behavior and their importance to northern Alaskans.
Allow me to hope that this short “signature story” leaves an indelible impression. Retirement, particularly in stimulating communities like Fairbanks, can consist of richly rewarding exposures to ideas that we were mostly too busy to appreciate before retirement. OLLI brings about some of the best of these exposures. □