Herb the Scientist

by Daniel Engstrom

In Memory of Herbert E. Wright, Jr. **Memorial Service, December 5, 2015**

(1) We are sitting on the broad stone steps of the north entrance of the Rayburn House Office Building. Out across Independence Avenue rises the great dome of the US Capitol. It is a warm late afternoon … summer if I recall correctly, and the year is 1977. He has come to Washington to give expert testimony about the scientific importance of the Boundary Waters Canoe Area – its uniqueness as a place of study and contemplation of the forces of wild nature … climate, fire, ecological change … as they are writ over the long course of time. Competing bills to preserve or divide this great landscape are pending before the US Congress, and hearings that will determine their outcome are being held by the House Interior subcommittee on National Parks – chaired by the powerful congressman from San Francisco, Phil Burton. The previous day's session had been gaveled to an early close … in the midst of his testimony. Burton was captivated by the great scientist and wanted a more relaxed and personal chat with him … in his office, over afternoon vodkas of which Burton was known to be fond.

But this afternoon we are talking about graduate school and the possibility that he might be looking for a new student … one who has made a couple of half-hearted attempts at it and is now working in Washington as an environmental advocate and lobbyist. He is already scientifically renowned – famed expeditions to the Near East to help unravel the origins of agriculture, honorary doctorates, Regents professorship (Geology, Ecology, Botany), Fellow of the National Academy of Sciences. He has been recently working in the Yukon's St. Elias Mountains on ecological succession in the wake of the receding Klutlan Glacier. I am fascinated by this image of science in the far and wild north and also a bit in awe. I ask if it might be possible to do something similar in Glacier Bay in southeast Alaska. The answer is an easy yes … with no pause or doubt or elaboration. He makes it sound simple, uses words sparingly, concisely, leaves air in the conversation. I will eventually learn not to try and fill these awkward silences.

(2) Room 218 Pillsbury Hall. A typed postcard-size sign on the door reads, Department of HEW… a pun, in those days referring to the federal agency for Health Education and Welfare (now Health and Human Services). I would later learn another droll explanation for the initials, *H.E.* (Hardly Ever). The room is a labyrinth of file cabinets packed with reprints, and pathways leading to grad-student cubbies distributed along the walls. Mine is in the corner near the door – a prime spot made venerable by earlier occupants like Ed Cushing. The director's office is right across the hall. His door is always open, and through it passes a steady stream of visitors. He is always available, interruptible, for enquiring student or esteemed colleague, with appointment or no. He says it is his most important function, and besides he does most writing early mornings in front of the home fireplace. Packed bookcases line the high walls of his office; a pair of wooden desks are piled with papers … creativity in progress; a weathered oak desk chair wheels across a rumpled and worn oriental rug; a trusty Underwood sits on a nearby stand waiting for his rapid two-finger touch.

His LRC is an amazing place – antiquarian in physical appearance, and at the same time a center of the scientific world. It bustles with ideas and people – grad students, staff, and visitors from everywhere … it seems. It is a crossroads of the earth sciences and ecology, of modern processes and ancient systems. There are neolimnologists, paleolimnologists, glacial geologists, forest ecologists, peatland hydrologists, palynologists, bryologists, diatomists, geochemists, … and generalists. And he is the most

general of all – a renaissance man, a polymath, interested in everything, master of many, admittedly expert in few. But this is precisely where he excels – creatively synthesizing ideas from disparate fields of which he knows something … but not everything. And then gathering together the people who are the experts (or will become them), providing for them a supportive and nurturing and stimulating environment in which to work. And gather they do … Bill Watts from Ireland, John and Hilary Birks from England, Roel Jannsen from the Netherlands, Rick Battarbee from England, Svante Björck from Sweden, and many others before and after my tenure. They are the LRC extended family.

I arrive roughly midway through his 70+ stream of Ph.D. and Masters students, many of whom will go on to make their own scientific mark and carry his legacy forward. The very first is a (now deceased) university president whose dissertation involved the post-glacial development of Lake Pepin and the upper Mississippi River. The last of them is a newly-minted assistant professor whose dissertation also involved Lake Pepin and the upper Mississippi River. At the age of 96, at that final thesis defense, he will have come full circle and I will have had the honor of co-advising his last Ph.D.

But I see him now as when I first arrived at the LRC in 1978 … gently nudging us forward, giving us the space and freedom to make our own mistakes, generously promoting us, never seeking center stage. And always using scarce grant resources to support his students and post-docs, but never, never to buy new equipment … when there was a shed-full of old heavily-used stuff that might – just might – work. By example, by temperament, by fairness, by intellect, he is/was a perfect graduate advisor.

(3) It is drizzling again; another low pressure trough has drifted in from the north Atlantic bringing with it the cold fog of the Labrador current and its stream of Greenland icebergs. There are four of us in this little expedition – three graduate students and their advisor – here to unravel the post-glacial environmental history of easternmost Canada. We are encamped on the sandy beach ridge of a large shallow lake, having been dropped off by float-plane some ten days earlier. There are no roads or human habitation for hundreds of kilometers in any direction except the coast. The blood-thirsty black flies are thick, and we are nearly out of food.

He is sitting under a tarp with a pile of equipment – evading the rain and some of the flies – his concealment limited by the exposed feet of his green hip-waders. A new Gore-tex tube-tent, a gift from his sons as we understand it, lies flat, sodden, and uninhabitable in the soft peat behind the beach. He prefers the simplicity of tarps. He is working on a manuscript, pencil stub and scraps of pre-used paper in his big hands – writing in near-complete sentences “off his head-top”, as he puts it. His manuscript has something to do with the “End of the Pleistocene”. His powers of concentration are impressive; he is immune to discomfort.

We have been listening hard for the sounds of a plane for several days. The sky has been intermittently clear and yet no plane has appeared. Although some of us are beginning to wonder if we’ve been forgotten, he is calm and untroubled. Plane delays and running short on food have happened before in Labrador, we’d been warned, and so we don’t rely on him to purchase supplies. And yet here we are in a predicament not of his making, but perhaps, we imagine, feeding his sense of adventure. Eventually, two of the more impatient of us will hike and raft three days to the coastal settlement of Port Hope Simpson, commandeer a Twin Otter, and rescue our appreciative comrades with Hudson Bay Purity biscuits and a big tin of peanut butter.

This story and other stories about field work with him are told and retold. They make us laugh, shake our heads, and recall fondly what was at the time stressful and maybe a bit foolhardy. They are an integral part of who he was, and he lives on in their retelling.

But I’ve often wondered about his approach to field work, why he preferred it loosely planned, why he used old and sometimes unreliable equipment, liked to improvise in the field – think spruce logs to float a leaking rubber raft –, wore threadbare clothing in winter with holes for blackflies to enter in

summer, preferred a sleeping bag in the snow to a hotel-room bed. Perhaps it was the fatalism of a World War II bomber pilot, maybe he enjoyed the physical and mental challenge, or perhaps he just liked adventure and the unexpected. But I think there was more there. He loved wild places, and the natural world was his inspiration and muse; he knew it intimately and did not want over-planning or concern for personal comfort to interpose on that relationship.

(4) Wengen, Switzerland 1997

[1]Some scientists met atop a Swiss mount
For discussion of lakes and of pollen
And of gravel and ice, and things one can count
That into a peatland have fallen.

We are gathered in this beautiful mountain village to celebrate his 80th scientific birthday and to rekindle the many good friendships that have grown through the amphi-Atlantic exchanges that he has fostered between US and European research centers. There will be a day or so of lectures by colleagues and former students, a stunning alpine hike from Männlichen to Kleine Scheidegg, a cog-rail trip to the Jungfraujoch at the head of the Great Aletsch Glacier. And then he will be toasted (and roasted) at an evening gala in the grand old Hotel Regina.

Upon his broad back was a lumberjack coat
Of wool that was tattered and ripped.
He coughed just a bit, and then cleared his throat
And pulled out a worn manuscript.

The gathering is the idea of his close friend, Brigitta Ammann, of the University of Bern. Each summer, 10 years prior and 10 years after, she and he will join a small cadre of scientific friends for the European bog excursions – field trips to remote and beautiful places – the Czech Tatras, the Altai and Tuwa Republics, Bulgaria's Pirin Mountains – to collect cores, investigate the local rocks and plants, eat good food, tell good stories. And each summer Brigitta will visit Minnesota for their annual canoe trip to his beloved Boundary Waters. She will eventually introduce him to a Bulgarian palynologist, Vania Stefanova, who will move to the US and in time become his closest companion and, at the end, his steadfast and loving caregiver.

But back at our Wengen gathering, he is listening to an epic poem in which he awakens from a long slumber deep inside a Swiss glacier.

"I was trapped long ago in the deep snowy white!"
He said as he blinked his eyes twice.
"But since I was there, I thought I should write
"Of the things that I saw in the ice."

"I watched moraines form from the lateral scree,
"And watched air be trapped into bubbles.
"I saw strata of bedload and other debris
"And wrote it all up, without troubles."

There will be another such birthday gathering 10 years hence in Sils, Switzerland, and a companion gathering for US friends back in Minnesota. At 90 he will still be writing and editing papers, still engaged with dear friends worldwide by email, the old Underwood long since displaced by an Apple computer on which his two fingers move a bit more slowly. His Hythe Street home will continue to serve, as it has for nearly half a century, as the venue for Wednesday evening seminars in Quaternary paleoecology. Subsequent birthdays will be fêted more quietly and closer to home. On his 97th, held

impromptu with a small gathering of old friends and aging students at our home, he will listen as the great saga is read once again.

And that is the story, when all's said and done
Of the meeting upon alpine heights,
And of all of the work and of all of the fun,
And the Ice Man of Wengen, Herb Wright!!

[1]from *The Ice Man of Wengen* by Jim Almendinger