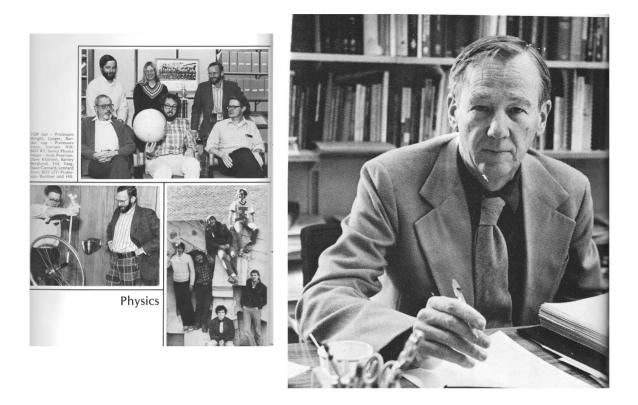
## **Celebrating Ric Bradley's 100th Birthday**

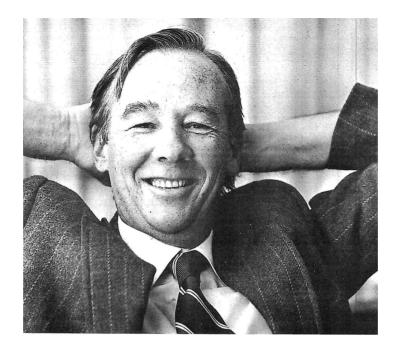




Thank you for your many contributions and years of service to CC as a Physics professor and Dean of the College. I am forever grateful to you. Best wishes as you celebrate this milestone birthday!

Erik Vaag, class of 1981

CC Physics department 1980



### **Professor Bradley**

I am an apostate physicist who took your course on electromagnetism as a sophomore many years ago around the same time you were fighting the flooding of Glen Canyon. Your lectures on both topics were wonderfully clear and inspiring. To this day I use many ideas you taught us, especially in economics where spectral density estimation still flourishes and Fourier transforms are central to econometric analysis. I internalized the Maxwell equations and they live in me! Thank you for your lectures and your kindness to me so many years ago. They are still deeply appreciated.

James Heckman CC 1965 Math major



To my eternal regret, I never took a course from Ric, but he was my academic advisor. As I think I remember, I chose to take a philosophy course (ethics with Rucker) instead of "Modern Physics" with Ric. In the end it turned out not so bad since I got to take Introductory Quantum Mechanics from Han Bethe in 1966--the year he won the Nobel--my first year in grad school. When Hans showed up for class that morning, of course he got a standing ovation, but Hans being Hans, he waited for the noise to die down and continued his lecture as though nothing was different.

So my memory of Ric is of an opportunity missed--I probably would have had to take QM in grad school anyway. He was a good advisor as he, apparently, did not insist that I take all the Physics courses.



photo is of friendly Ric in 1944

Dear Ric,

Majoring in physics was a stretch for me and you were always very encouraging and a friendly face in Olin Hall, which I am eternally grateful for.

Majoring in physics increased my intellectual self-confidence and provided my father, an astrophysicist at NCAR/UCAR in Boulder at the time, some reassurance that I wasn't a total idiot, so thank you for that! I pursued a career as an Infectious Diseases physician and am having an extremely rewarding career and attribute it largely to my liberal arts education at CC, which provided the foundation.

Happy Birthday!

Sean Curtis, 1985



In 2003, I was a brand new professor with little idea what I was doing (Shhh! Don't tell!). Ric volunteered to show me a bunch of physics demonstrations that we had in the department. We spent quite a number of days together, pulling out equipment and making it all work to demonstrate some beautiful physics. Ric was so kind and reassuring that I felt like I belonged as a physics professor - and I learned lots of wonderful demos that I still use as well.

Happy Birthday, Ric!



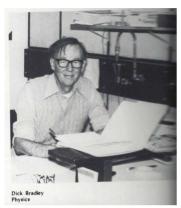
Happy 100th Birthday, Ric!

How well we remember the glorious times we had with you and Dorry on numerous winter hut trips in Colorado's backcountry, starting with the rather sparse but cozy Fred Braun huts in the 1970s; (remember stopping by Fred's house before starting up the trails to pick up basic supplies for the huts?). In later years we all continued the hut trips in the somewhat more luxurious 10th Mt. Huts, always reserving the hut in the name of Uncle Ric's Group.

Thanks, Ric, for:

- teaching us all how to do telemark turns (yours were effortless)
- leading us in singing in the evenings after dinner
- locating Mark in the avalanche with your ski pole probe outside the Lindley Hut
- instilling a love of back country skiing and kindling lifetime friendships among all of us in Uncle Ric's Group.

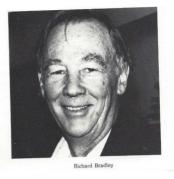
Love, Carol and Dave Kampert



Lots of fond memories from the '80s.... E & M, cross-country ski trips, the Physics Formal, yards at the Golden Bee. Ric was always kind, caring and supportive. He guided with both knowledge and example.



For the younger alums: Bordner, Veirs, Bradley, Hilt and Wright.



He was also a dedicated environmentalist, who worked so hard for many important causes.

My mother, Dorothy Krimm, wanted me to add: "Ric was gentle and a gentleman." She praised the immense care he took of Dorry through her last illness. My father, Hans Krimm, would have added his memories of Ric as part of the "Boys Lunch" group with my father, Carl Roberts, and Werner Heim. All are now gone, save for Ric.

I didn't have my own photos, so I scanned these from CC Nugget!



Ahhhh... fond memories of times with Ric make us smile! Here are two recollections...

Debby remembers Xcountry skiing to Francie's Cabin with Ric by her side. It was one of Ric's final hut trips, and the pair skied slowly. Debby's Rick had skied on ahead. The last 1/4 mile to Francie's is a steep uphill; that's where we were at this recollection. Debby was winded. Surprisingly, so was Ric, though MUCH less so. Removing skis to walk that last stretch wasn't an option, as the deep snow would have meant post-holing in waist-deep snow. So - we trudged along laughing when we could until at last we reached Francie's. What kindness Ric exhibited staying by my side!

Rick recalls Monarch Pass ski trips in May on sunny Mother's Day weekends. We climbed up from the road to a trail, skied to the (closed) Monarch Mountain ski area, then skied down. Along the route, we stopped to sing Happy Birthday to Ric, to enjoy Dorry's rum cake, and to eat picnic lunches carried up in our backpacks.



Ric and Dorry Bradley are part of our decades-long memories at Colorado College. As 1964 CC graduates we returned to the college for Walt to start teaching in the Economics and Business Department in 1970. We have fond memories of being welcomed to the CC faculty by Ric and Dorry in special ways. My connections to the "science side" of the college largely started with friends in the Physics Department as enduring examples of scientists who then and now are dedicated to their fields and have lives outside their professions. Social occasions, faculty potlucks, hikes, and musical events involving Ric and Dorry from piano and composing to singing all remind us to this day of what the "liberal arts" really mean. Gradually I learned of the Bradley clan and their deep involvement in what we now call the environmental movement.

Walt and Ann Hecox



Oh, Ric and Dorry, what a life you two have had! And, I am so sorry that Dorry didn't quite live to enjoy this happy birthday.

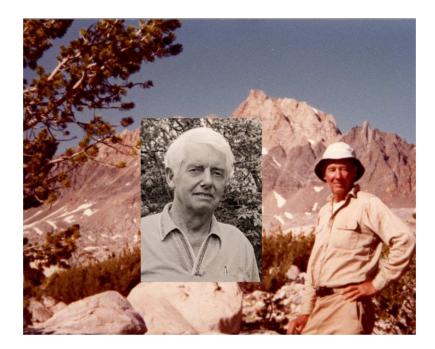
Anyway, Dick and I were thrilled to share some great times with you, though all too few! I remember the group cross country hut ski hikes, which I believe were eventually called "Uncle Ric's Group!" Not sure you were on the first one Dick and I took when he became Governor, and the State Patrol made him check in each night, by standing out in the snow, radioing "This is Car One" while we all sat inside snuggly and warm, drinking wine and laughing at his efforts. On a more serious note, we have always been awed by your outstanding leadership on the environment. Dick had met David Brower back in the "stop the dams" days, but I don't think he met you until later in Colorado Springs. You might be interested to know that Dick and a lawyer friend boated the Glen Canyon right before it was dammed up - kind of a sorrowful, memorial journey. And look at pathetic Lake Powell now !! Dick and his brother Tom were also involved with the Florissant Project, but my senior moments are now preventing me from remembering exactly how.

A certain friend has told me about your mentoring of so many students and faculty at the college and on the example your life has set for so many budding and aspiring environmentalists. I'm not one bit surprised! We feel fortunate and proud to have been supported by you and Dorry in our political campaigns, and I only wish Dick were here to join in this Thank You tribute.

Congratulations on a full Century of Leadership, hard work, and inspiration!

Love, Health and Peace, Dottie Lamm

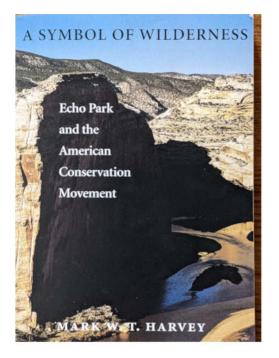




It's 1978; I'm a Sr. bio major with no real idea of my future. I love field biology but hadn't found the fit.

I knew Ric from Physics, choir and his love for the outdoors. He says to come by his office. I tell him I want a path where I can make a difference. He says, "I'm calling Dave Brower". Ric and Dave were childhood and lifelong friends, and in a moment, Dave is on the line. I sit there wide-eyed. "I've got someone here who can help..." Dave says he is speaking in Montana in 3 weeks. Can you get yourself there? I said, "YES, of course". I bussed to Missoula, met Dave, and was hooked. I left on cloud nine when he said, "We need a wildlife guy; come out to SF."

I worked closely with Dave for 22 years until his passing, and am ED of Earth Island Inst., which Dave founded. A few years back CC graciously gave me an award. As I look from the lectern at Shove, there are Ric and Dorry, spry and warm as ever, cheering me on. What a generous call Ric made and what a difference it made for me!



that the Bureau had not placed pails at Leno Fark of hear the proposed reservoirs. Instead, information had been gathered from "widely scattered Weather Bureau stations of which only six had evaporation pans." 56

As the uncertainties of measuring evaporation became increasingly clear, Bradley obtained confirmation from Luna Leopold. Until now, Leopold had not encouraged conservationists to question the Bureau on such technical issues, but by the spring of 1954 he became more willing to provide information from behind the scenes. Chief hydrologist with the Geological Survey and one of the nation's premier experts in the field of water, Leopold's knowledge proved invaluable to Bradley and his side. He confirmed to Bradley that "estimates of evaporation from dams not yet constructed are still subject to considerable error," and he indicated that the studies of evaporation done at Lake Hefner revealed the inadequacy of measuring using "ordinary evaporation pans." 57

Leopold also pointed out that by emphasizing water loss from evaporation, the Bureau conveniently ignored other ways that water could be conserved. As an example, he informed Bradley that

professor at Cornell University. In writing to Ric Bradley a few weeks after the hearing, Brower argued that all the talk about evaporation simply masked the fundamental reasons for Echo Park Dam. "Evaporation is just a lot of chit-chat," he said, "but we do have to demolish that herring, and can gain quite a bit, I think, in doing so." 52 Ric Bradley soon became Brower's chief assistant on the evaporation front. He agreed that no progress could be made toward saving Echo Park until the "fundamental issue" was discredited.53

Bradley set to work on evaporation in a methodical way. He knew that the Bureau's estimates had been altered, since Oscar Chapman had first mentioned the evaporation matter in 1950. So he began with a simple question: How did the Bureau-or any scientist, for that matter-estimate evaporation? To find out, he sent a one-page questionnaire to seventy specialists in hydrology and meteorology. He asked them how they went about making such calculations, how evaporation was affected by wind, air temperature, and reservoir size, and how reliable they considered the various formulas for calculating evaporation to be.

As he heard



### Ric Bradley - A Tribute from Val

Where does one start in describing the man who has been the most important person in our lives outside of kids and such? I guess, at the start. Finishing my PhD and having avoided fighting in Vietnam, I wrote letters looking for a Physics job. I wrote saying that I wanted to 'teach environmental physics'. This was 1971.

Ric, as department chair, wrote back: 'I don't know what that is, but you should come out and we will talk about it'. That willingness to look into the inchoate interests of a young physicist and then offer me a position at CC set me on the path that I still follow.

Ric has been there for me over the many bumps in that road, in teaching me how to be a better faculty member, a community activist person and a better person. And, Ric fostered in me a deep love for high mountains and snowy, steep slopes calling for telemark turns.



It wasn't until many years later that I learned that Ric, while still at Cornell, had played a key role along with Dave Brower in stopping the damming of the Green and Yampa rivers in Echo Canyon. This was that 'environmental physics' that I had been talking about; Ric had already been



doing it!

Shortly after I came to CC, Ric became Dean of the College, an office with great powers and responsibilities. He brought his gentle and deeply patient self to a job centered on fights about budgets and staffing, etc. One story I like to tell is this: When Ric completed his about 6 years of service as dean, more people loved him than before. Not many administrators have this experience.

Ric and Dorry demonstrated to us how to build community through helpful listening and through hosting social dinners and picnics, and how they applied their quiet awareness to what others need. This selflessness seems to be at the center of their charm.





# Good Listener : Mentor : Strong : Compassionate : Curious : Flexible

### Renaissance man : Environmentalist : Humorous : Talented

### **Sir Richard Bradley**

I have always thought of Ric Bradley as the epitome of a true gentleman/gentle man. There are myriad adjectives to describe this exceptional individual; a few come immediately to mind: courteous, kind, trusted, respected, humble and artistic. Ric has always been generous – with his time and his wisdom. His attitude about life is positive and he is a fine listener. He is an excellent role model who encourages others (like Val, whom he mentored over many years) to be their best. This might be tackling a difficult physics problem. It might be exemplified by singing Ric's original musical composition, "Sierra Song", in the CC Choir. Or, Ric's teaching of his terrific telemark technique could be an example. He would also freely discuss ways in which to pursue an environmental cause as an activist.

Ric might be described as a modern-day knight. In the past, a medieval knight exhibited masterful skills with horses, but Ric has superb skills with people. He certainly has a knightly code of conduct, exhibiting humility, sacrifice, courage, and honor. We traditionally think of knights in a military capacity, providing service to a monarch, church, or country. Although Ric served on a ship in World War I, I would say that his real fighting contribution was battling environmental degradation. He fought throughout his life to make our earth a better place.

In peaceful times long ago, knights often looked after a Lord's land and the people who lived in a nearby village. Ric's village was his larger community, whether looking over CC's inhabitants when he was Dean of the College, chairing the Physics Department, presiding over the North End Homeowners' Association, or helping Dorry lead the charge to make Florissant Fossil Beds a National Monument. Ric is indeed a contemporary knight who should be recognized for his brave services and his enduring noble character.

Educated : Respected : Loved : Gentle : Honorable : Witty : Positive

### "King of the Huts"

An Ode to Ric Bradley in the tradition of Dr. Seuss

Let 'x' be the age that Ric is this minute So x minus 40's when he said, "Begin it! A trip to a 10th mountain hut every year With all of my friends and much of their gear. When winter blows in and things can get dreary, Let's head for the hills and make ourselves cheery. The peace and the quiet, the beautiful climb, We'll partake of the woods and have a good time." Folks gladly responded and wanted to go But did anyone think a tradition would grow That would have Ric et al plodding up to the hills For 40 years hence to enjoy winter thrills? 40 years, oh my gosh, that's a long time for sure Much longer than many commitments endure. So what kept people coming from season to season What hearkened them back, just what was the reason? They came for the good things the mountains can bring But it seems Uncle Ric was a key to the thing. It is Ric we applaud and we thank and we cheer For without him it's likely we wouldn't be here. And particularly "I", singled out of that "we", Would be home snug in bed, watching TV. Thanks to you, Ric, I am out of the coop And I get to claim "been there" with Uncle Ric's Group. Let's all raise a glass to the King of the Huts, That's Uncle Ric Bradley, no ifs, ands, or buts.

I wrote this poem to commemorate the 40th anniversary hut trip of "Uncle Ric's Group" which happened to be my first winter foray in this illustrious company. What a gift it was to meet Ric and hear about some of the many experiences the group had in years past.

It has been a joy to know both Ric and Dorry....two more gracious people would be hard to find. Happy 100th birthday, Ric! With love, Mary and Ted Bruning



Dear Ric, I'm so glad to be able to wish you a very happy 100th birthday!

I have two photos here. One is from my first winter hut trip this past December. The trip was organized by another CC physics grad, former "paraprofessional" Lennard Zinn (1980) (I graduated from CC some years later, in 1985, after taking four years off for bicycle racing).

The other photo is from Alaska, where I went with my wife Mary Olson to visit our younger son Galen, working then with the Kenai Watershed Forum.

I'm living in the warmer, lower latitudes of New Mexico, in Santa Fe after retiring from Los Alamos where I worked on ocean and climate modeling.

With great fondness —Matthew Hecht (1985)



From Uncle Bud's hut (near Leadville), December 2021



In Wrangel/St. Elias with son Galen & wife Mary Olson (CC Art 1982)

Two photos from the past year.



Colorado College chemistry professor Ted Lindeman does an experiment with physics and chemistry during the Cool Science Bia Show on Saturday at Colorado College.

CHRISTIAN MURDOCK, THE GAZETTE

I was a "froshling" at CC in Fall of 1969, pretty certain I would choose to major in either Chemistry or Physics. Both of those departments seemed to be quite friendly and undoubtedly well-tuned into classroom and lab instruction. One distinction I gradually picked up on was how "Sierra-Cluboutdoorsy" the Bradley Family was. When they were planning a crosscountry ski adventure for Spring Break 1971, they invited me to join the fun for a week in or around Lindley Hut. In return for being nearly the age of their son, I at least tripled my winter camping experience, polished my firewood sawing-skills, and expanded my appreciation of how jolly wine sipping grown-ups could be. I don't remember all the details, but the highlight of the adventure was the appearance of an amazing comet. The group included several scientists who were very interested in the heavens and roused us all at an early hour for several mornings to view the cosmic treat.



### Ric

Happy Birthday #100, an impressive milestone. I remember a Bradley rafting trip on the Rogue River in 1982, shortly after my father John passed away. It was quite an adventure and the first time I met so many Bradleys at once. A very active group despite advancing age. A few years later I drove down from Denver to visit you at your home and got to know you a little better. More recently we have communicated about music composition, and I sent you a CD of my string quartets, which you enjoyed. I plan to join the celebration of your centennial. Charlie Crane



### Ric, Congrats on a century!

We always looked forward to receiving cards with your watercolors. One's sitting on my filing cabinet right now.

Thanks for warning me that at a certain age standing during lunch on a ski tour might be easier than rising up after sitting down.

You've make telemarking look like a joy instead of a chore.

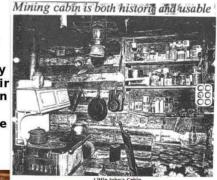
**Charlie & Shirley Paterson** 

Calm, observant, & wise, Ric climbed the trails at breathable pace, breaking trail in front of Dorry and the rest of us. At dinnertime he spoke quietly in the mountain huts, adding stories & songs to dinner camaraderie.

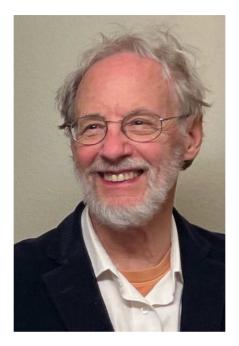
Once Ric graciously accepted leftovers at cabin meals, but until the morning of our departure, none of us knew that HIS bag of hut meals was lost, hiding--untouched-in a corner of the cabin kitchen counter! He hadn't wanted to complain or let anyone know of his lack of food! This is so typical of Ric. He always considered the needs & appetites of others in a ski or hiking group. He corralled us and kept us as safe as possible, even with heavy weather and every possibility of snow conditions. He was the perfect buddy to have in our skiing adventures.

Ric, Dorry, & Rocky Crawford (ret. general) took a hairraising ski trip with Laurel & her then-spouse Bruce in March 44 years ago. We met at sundown at the trailhead to ski by moonlight into Littlejohn's miner's cabin. It had been sunny...and the steep sections of trail were icy. Only the Bradleys had "old-fashioned skins" to strap onto their skis. The slog was very slow. In the upper valley the moon abandoned us to feel our way through 4 more miles of dark forest to the cabin. Fortunately, special meals in the toasty cabin & deep, crusty snow on the higher slopes in late morning transformed the trek into a delight. And it illustrated the wisdom of elder mountaineers.

Ric and Dorry were a great pair for singing at the huts. Some of these songs were from the WWII 10th Mtn. Division which had trained at Leadville CO. Beautiful voices blending in harmony at the huts are some of my best memories.







Dear Ric,

I have such fond memories of you, as my advisor, fellow actor in "The Most Happy Fella" in 1963, fellow singer, inspiring environmentalist, and good friend over the years.

One regret is that I never got to take a class from you--I heard such good reports about the inspiring classes you taught. Nevertheless, you inspired me as my advisor.

I remember a public talk you gave--I think it was about Glen Canyon, pre the Dam(n). You showed beautiful pictures of the area to be inundated. In one picture you showed a hiker "in his ninth decade" enjoying the area. I'm soon to enter my ninth decade--amazing to contemplate--and still able to hike through (some) beautiful places. I'm so pleased that as you approach your eleventh decade you're still here to receive good wishes.

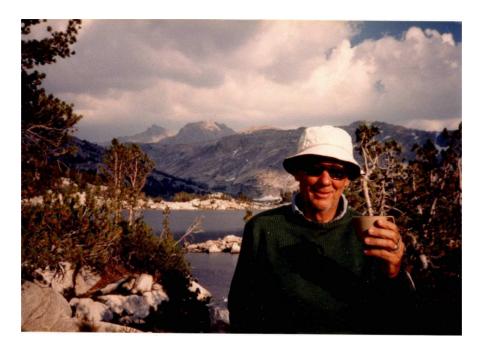
I certainly do send my very best wishes on your 100th birthday. May it be filled with joyous memories, and loving thoughts from your family, and many friends and admirers.



My dearest Uncle Ric: You are my stunning relative. You know, of course, that many of us migrated to Colorado College to find security as well as the path to vigorous exploration in your orbit. And then, of course, we were exposed to your humor and joy. What a blessing. CC is one of the best decisions of my life. I found a new way to think and a confidence to be on my own. I found my life's path following you through the Florissant and the Glenn Canyon Damn issues. And I saw you and Dorry leading a life I wanted to emulate. I carry your love and support to this day, and always will.

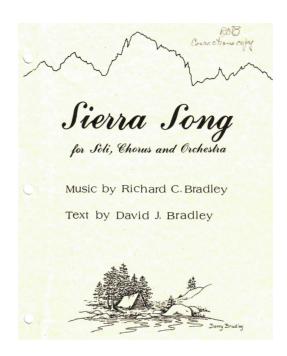
Your loving niece, the other, proud Dorothy Bradley





### "Climb the mountains and get their good tidings." -John Muir

My father, Sterner Remple, wrote me a letter in the mid-1970s after he had taken my sister, Meg Remple, to CC. My father was present for the staff welcoming of the freshman class. He wrote that some loquacious speaker had taken up some of Ric's time. So Ric leafed through his notes, looked up with his charming smile, and said, "In short, some students have come here without climbing Pike's Peak. I hope that doesn't happen to you."



**From Horst Richardson** 

When Ric was Dean in the mid-70s, he announced that he wanted to observe me teaching one of my German classes. What could I say? It wasn't clear which day he would chose, but I grew more nervous every day. Finally he came, sat in the back of the room, and watched. We were discussing a Heine poem, and I decided I would sing the famous version of the Lorelei for the class. After completing the first line "Ich weiss nicht was soll es bedeuten," Ric chimed in and we both sang the song together. At the conclusion of this rendition, my anxiety about his visit had turned into enthusiasm.

A week or so later, Ric sent me a note (inter-office memo, handwritten), inviting me to join a small group of singers to perform one of his compositions, a sea chanty. I adored the man from then on!! Horst



Hi, Ric,

Over the years, we have enjoyed many holiday dinners with you and Dorry. Also, we have collected many mountain and maritime watercolors with the initials RB. It is amazing, Ric, that as an artist you have created scenes by memory without the use of photos, Your creative talent is seen especially in ocean waves and billowy clouds. For example, in the 19th Century Schooner here.



### Ric-

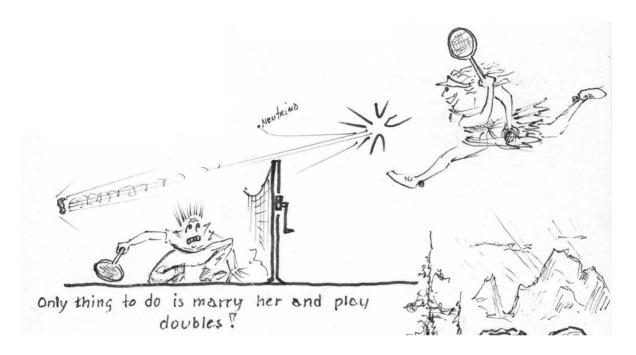
Sincerest congratulations from Ellen and me to you, for this and all your other achievements! Our brief sojourn at CC (circa 1977-1979) was all the more enjoyable due to your guidance and efforts.

We remember especially well a picture-perfect ski excursion to Breckenridge during the '79-'80 year, among whose high points were picture-perfect demonstrations of Telemark turns executed by the Bradleys. But alas we have no pictures-- for some reason we didn't have our phones with us!

Thank you, and congratulations, again. Bob and Ellen Cornett

# Dear Ric - here's to all the wonderful family gatherings!





I have nothing but happy and admiring memories of Ric Bradley, both as a colleague and friend at Colorado College, and as a superb dean. Long ago when CC was looking to hire a new faculty chair in one of its most important and influential -- especially for our students -- departments, Ric, on my advice, hired a superb new professor and teacher to take over that department, and it ushered in a whole new era at the college, an important era. Sure, there were some problems, but sometimes they come with a certain kind of appointment. Overall, Ric had the insight to make it work, and it returned remarkable results. And last but not least, who can forget the famous "Phantom Tennis Tournaments" at Ric and Dorry's house? What larks we had, Ric. Your vast intelligence, your superb wit, your good judgment, all worked to make you one of the most memorable deans in the history of the college. Ric, I and countless others salute for the good life that you have led. And for your good deeds.

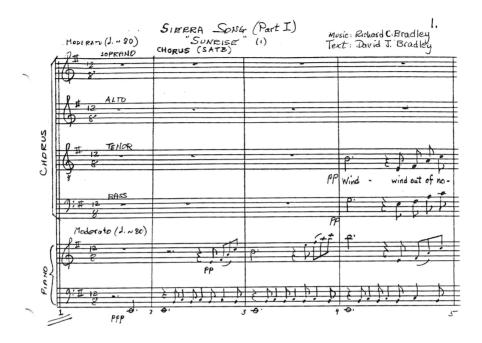


Hey Ric! This is Brad. It was great to be on the "Adventure" With you, Dorry, my dad and Kathy, and all Bradleys!



Boat trip on the "Adventure," August 1985





### Happy Birthday, Ric!

Sending heartfelt birthday wishes to the man I remember fondly as the, 'Singing Dean'. I continue to cherish your thoughtful words of support during my tenure as interim copresident at CC. Your time and wisdom was deeply appreciated. Cheers to you on this momentous occasion! Warmly,

Mike Edmonds



We met Ric and Dorry in 1987, when Shane arrived at Colorado College following his Ph.D. at Berkeley and a post-doc position in Laramie. As both skiers and physicists, Ric and Shane hit a lot of common ground and many good adventures have followed through the years.

Tagert Hut was our first ski trip with "Uncle Ric" and his merry band. Many ski huts and day trips skiing followed. The annual Monarch Pass backcountry trip was always welcome – especially the rum cake that would be packed in by Dorry (and later, by Beth Carlson). Ric always skied in woolen sweater, pants and socks, and strapped onto wooden boards that spanned six feet long. He also was the best telemark skier in the group—his turns graceful as a ballet solo.

Many years later...it has been an abundant windfall to share time with one of the most dynamic couples in our lives. And even better, to call them our friends. Thank you, Ric and Dorry!

Love from Shane and Stormy Burns

Happy 100th Grandpa! You've lived a life that's inspirational. Here are some favorite memories with you: -Spending nearly every single Thanksgiving and Christmas Eve at your/Grandma's house -You and Grandma would take me and Amber to the North Pole and ice cream for our birthdays when we were little -The infamous backpacking trip in the Utah canyon that was quite rudely interrupted by a flash flood Seeing you and Grandma in the audiences of my various musical performances -Talking about Yosemite, the mountains and the outdoors









The Greatest Grandpa!



Dear Grandpa,

It's not easy writing, about you, not because I don't have anything to say, but because my love for you is so big, it cannot be put into words easily. You are the most amazing man I have ever known. Never had a bad face, never said a bad word, never a bad anything... You have always been so sweet, caring and the Grandpa every kid dreams of having. You always have nice things to say and your arms are always a space of comfort. You are fun, smart, a talented painter and composer, creative, a good talker and simply a WONDERFUL human being. You are one of those unique people that no matter how good or bad the day goes, you always start and end it with a smile... I don't know anybody else with that gift. Thanks for singing, humming, composing or just feeling the music. Thanks for the puzzles you sent in the letters for years and for the puzzles you keep on telling us when we see each other... you have no idea how much I enjoy them. Thanks for never giving up when it came to explaining something about physics. Thanks for always making me feel loved.

continued on next page



You are creative; always thinking of ideas of what to do or how to solve problems... like the time you invented a chain system to keep your wallet safe from being robbed. Even though it got stolen anyway, I admired your creativity, and I will never forget the serenity with which you handled the situation. No matter how difficult things can get, you are always the best version of yourself.

Thanks for sitting down and painting with me, thanks for playing ping pong and for drawing. Thanks for the river trips, and for going camping with us. I remember you and your tent being held up by the trees, and I remember thinking how cool you were. I keep on thinking that.

Now you are 100...and this world has needed you every single day. You make it a better place to live in. You spread love and happiness wherever you go. You light up every space you are in with love.

Thanks for always being the grandpa I have needed. No matter how far away we live from each other, my heart has always been with you.

Thanks, thanks, thanks to the universe for letting me have you In my life. Happy birthday.

l love you.

Tea

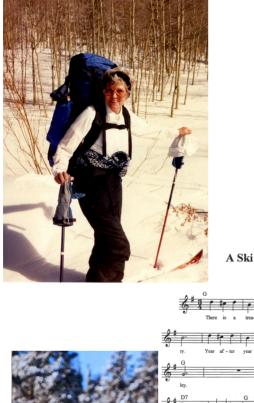








Skiing is life in the Bradley family.





A Ski Slope Made For Us J. Watkins & H. Dacre



I spent many good years in the mountains with Ric and Dorry.

Thoughts on the Occasion of Ric Bradley's 100<sup>th</sup> birthday

Ric, you retired in 1987 and I was hired to "replace" (not that that was possible) you. So we never overlapped in the physics department. But on several occasions I needed to ask for your help, and your response was so gracious and supportive. It was always just what I needed and so kindly offered—never refusing, never patronizing.



When I was department chair, the department sort of self-destructed one year—one of my colleagues was on leave, one resigned suddenly, one took a necessary medical leave, and one died suddenly and tragically. I spent hours on the phone looking for people to fill in and teach our classes. I asked you, Ric, to teach several blocks of introductory physics, and you responded with generosity and eagerness. You did a great job (of course), and the students adored you. They wondered why we couldn't hire you full-time—I wish we could have. My recruitment was successful, btw—we only canceled one specialty class with just four students registered.

A few years later, we had a new colleague, Kristine Lang, who was eager to use demonstrations in her classes, and wondered what equipment we had available. She asked you to help her learn the equipment and how to use it. You again responded generously and eagerly. You organized several demonstrations of how you used the equipment in the classroom. All the faculty were invited, and of course I attended. Your clever and witty presentations enlarged my knowledge as well, though I had been teaching in the department for several years.

My last story concerns Dick Hilt's 75<sup>th</sup> birthday party. (I didn't think Dick would ever retire, and thought this would be a good substitute.) I asked you, Ric, to be the after-dinner speaker, and as always, you agreed eagerly. You gave a wonderful, funny, and gentle roast of Dick's early years in the Physics Department—stories that few of us knew about. Couldn't have asked a better speaker!

All my interactions with you found you to be kind and generous—a truly great guy! Happy 100<sup>th</sup> Birthday!

Love,

Barbara Whitten, Professor of Physics Emerita

### MEMORIES OF DAD

#### SAILING, SAILING, OVER THE BOUNDING MAIN

So many darn good memories with you, dad! Starting with Cape Cod: sailing over the blue sparkling waves wearing orange life jackets and hearing you yell "hard-a-lee!" Digging for clams with Helen on sandbars and admiring the horseshoe crabs. (I know mom made clam chowder one night, but did the kids eat any of it?)

Maine summers were a time to-spend with Uncle Dave's family. Bowline knots, rocky shores, fog, amazing jellyfish. I was more interested in Maine blueberries than the mussels that you adults ate with such relish.

#### THE MOST HAPPY FELLA

You have always been a singer, pianist, actor and composer. I hope your brother Steve realized your acting potential when you stood on the stage as "Doc," singing about love and kindness as a prescription of some sort. And such a nice tenor voice! I believe I witnessed you in a Mozart comic opera as a drunk, did I not? Thank you for taking me to the Mikado back in Ithaca. I was never the same again. I never forgot the costumes, the music, the pretty fans. I remember growing up with music everywhere and hearing and singing songs like HOBO BILL, ALLEN-A-DALE, BARNACLE BILL, MY HEART DOTH BEG ... to name a few. Our family should have won first place in the talent show on that boat in the arctic circle. The judges had to have been bribed, I am sure of it. And what a monumental composition SIERRA SONG was! And thanks, dad, for bringing your recorder group to Audubon to play for my students.

#### IT WAS CLAUS ALL RIGHT

You were and still are very much a family guy...and a funny one! We kids loved having Santa come stomping up the stairs playing the harmonica and yelling and banging on doors. (Larry picked up where you left off with your grandchildren, and now Alex is carrying the torch with your great grandchildren. Or trying to anyway. They are mostly terrified.) And who could ever forget A Christmas Dirge; that hysterical, timeless puppet show that appealed to young and old alike? Thank you for helping me with math when I was in high school. I was so ashamed that I couldn't make sense of it all, but you never once made me feel stupid. Math aside, we all enjoyed being read to. THE WHITE SPIDER, CHEAPER BY THE DOZEN, A TALE OF TWO CITIES, HUCK FINN, WE DIE ALONE, to name a few. Dad, I probably deserved that spanking for nibbling on mom's cake and making holes in it, but it didn't cure me of my fondness for cake. My teeth can attest to that. I know mom struggled with pop music, and for that reason I appreciated you allowing me to listen to the radio on the way to school. You sounded great singing "So Happy Together" along with the Turtles!

So many more memories dad, and not enough room in Val's one-page-only dictum! Suffice to say we all love and admire you and next year I can write plenty more. And finally, thank you for joining the war when you didn't have to. That was an act of courage.

Love Joey

## HAPPY 100 DAD!!!

You're the LOVELIEST, KINDEST person I have ever known. You're totally honest, zero tempered, supportive, sweet, cultured, patient, nonjudgmental, artistic, athletic, a hard-worker and a million other good things.

You had a long and lovely marriage with Mom, a woman whom you regarded as a valued equal every day. Where did this forward thinking come from Dad? (Well yes, Mom DID command respect.) Equality of gender, race, or religion was a concept you grasped EARLY and have championed all your life. I've never known you to discriminate against non-traditional relationships/ marriages/ adoptions or assume a holier than thou attitude. What a tremendous example of great parenting!!

I know you still feel awful because you "made 2 child-rearing mistakes" (your words). Can you remind me what they were please?

On our journeys through life we have both known parents who erred bigtime. That was not you Dad. Lucky me to have won the parent lottery!

You were the father who played kickball and wiffleball with the Ithaca gang, who created ice-skating rinks, puppet shows, outdoor activities, music, WOW vacations. You were the teacher who always interrupted your work to read classics to us or help us though any school subjects, even if it meant you didn't get much sleep later. In my case it still puzzles me why I have so much trouble understanding math, chemistry, and physics. My most horrific nightmare would be to take another class in any of those 3 areas... or to take a history class that focuses on dates rather than events or to have to memorize German prepositions. As I talk with Teamai (who was professionally diagnosed with severe ADHD) I am coming to understand that my brain is probably wired differently or has a gaping black hole which prevents me from absorbing or processing things. But thank you for spending all those long hours TRYING to explain how fun and easy physics is. (At exactly the same time I was writing this, an acquaintance of mine from North Jr and Palmer was explaining to me in Messager that she has dealt with this exact same problem all her life. We'll refer to it as NJ-P syndrome forever after.)

Thank you for not interfering or viewing me too harshly even if you disagreed with me. Thank you for not burning bridges, not cutting off financial assistance when needed, or adding fuel to volatile situations. Your gentle, non judgmental love for your children assured your reaching 100 with 4 kids intact.

THANK YOU FOR BEING MY DEAREST FRIEND MY WHOLE LIFE DAD!!!

Some memories of Dad, by Rick Bradley (Jr.)

Dad (together with Mom) did a LOT of things with and for us "kids". Here I shall relate briefly just a few lighter facets of that.

When we were young, Dad read stories (fairy tales, etc.) aloud to my sisters Helen, Jo, and me. (At that time, our brother David was still too young to be a part of that.) I have various memories of that from Ithaca, New York, and one particularly strong memory of it from Colorado Springs, Colorado. A couple of years or so after we had moved to Colorado Springs, Dad brought home an adventure/mystery novel, "The Hound of the Baskervilles", featuring the fictional ace detective Sherlock Holmes. Over the course of a few evenings, in the living room of our house on Cascade Avenue, Dad read that novel aloud to Helen, Jo, and me. It immediately became my favorite story; and to this day it is my favorite piece of literature (fiction or nonfiction). I have reread it at least 10 times since then. Of course there was the usual sibling rivalry; a day or two after Dad had finished reading that novel to us, Helen claimed that the fictional ace teenage sleuth Nancy Drew would have handled the Baskerville case better than Sherlock Holmes did. After many months of effort on and off, I have recently finished working through a (quite accurate but "not too literal") German translation, "Der Hund des Baskervilles", with the aid of a Webster's German-English Dictionary, to try to relearn and add to the limited German that I had known decades ago.

In another vein, Dad and (my brother) David and I played many rounds of golf together over many years, including a few 18-hole rounds on the Patty Jewett Municipal Golf Course after Dad had turned 70. One particular isolated memory of such a round in the summer of 1994, was on the par-3 2nd hole, where Dad, then 72 years old, scored 3 (par) after hitting a chip shot of nontrivial length to within about 10 feet of the hole and then sinking that 10-foot putt. Our last such round together was in December 2002, during Christmas Vacation. It was cold but not inordinately so, and there was little or no snow on the ground. David shot a fine round for an 18-hole total of 86, including a birdie 2 on the par-3 11th hole. The only worthwhile memory of my own round that day was my 5 (par) on the par-5 16th hole, after I had banged a not-too-long putt a good 12 feet past the hole on the cold hard green, and then with similar (absence of) touch banged that 12-foot putt into the hole. But to me the most memorable aspect of that round was that (as he and David and I had each done throughout our lives when playing golf) Dad, then 80 year old, walked and carried his own bag of clubs (he had a "half set" consisting of 8 clubs), and on the longer shots he was still taking close to a "full swing". In weird contrast, so many younger golfers these days — including college kids and even high school kids — ride in electric golf carts when playing golf.

It is no surprise that Dad (along with Mom and a few other relatives) has climbed to the summit of the rather strenuous North Palisade Peak in the Sierra Mountains in California. A favorite "climbing memory" of my own was when (during the camping trip in the Sierras in 1966) Dad and Uncle Dave and I climbed together to the summit of Mt. Clarence King — a climb that was not inordinately difficult, but somewhat tricky and really fascinating.

Happy 100th Birthday, Dad!



Dear Ric, on your 100th,

What can I say that could possibly do justice to my 60-odd year relationship with my favorite uncle and aunt and all of your wonderful children? First off, thank you for sticking around for so long! I can't even imagine what it must be like to hit a century of life. But mostly, thank you for being the person you are - so gentle and modest and good-natured and dependable and loyal and musical and learned and, in my view, capable of anything - in your always understated way. Steady as they come, as Dad would say.

Who else, besides Dad, would I have entrusted my life with on those ropes in the Wind Rivers and Sierras? Those two trips were a highlight of my youth - who could forget those mountains and those meadows, climbing Mt. Bradley, the fishing, the freezing dips in the lakes, the pancakes, all those freeze-dried dinners, those damn burros, the laughter, the singing, and you and Dad reading disaster stories to us by the campfire underneath a sky full of stars.

The times you came and stayed in Maine were just more icing on the cake - the Mischief sails, the Beetle Cat races, the knot tying lessons, the Big Babson picnics, the bonfires on the beach with lobsters and mussels, more story telling, more laughter, more singing.

Aaah, it all brings tears to my eyes! But I always was a weeper... It runs in the family.

I wish we'd lived in the same part of the country so we could have seen you all much more often, but I do cherish the times we had in the mountains and in Maine, and with your assorted trips to Hanover where Bob and I had the pleasure of hosting you and Dorry a few times. It was a drop in the bucket in terms of repaying my gratitude, but it was a treat as an adult to be able to give a little back to people who so enriched my life.

And then there was the relationship you had with Dad. It always touched me. You were particularly important and special to him throughout his life, as I'm sure you know. I don't think there was anyone he respected more than you, and I think he also appreciated (and we did too) how your temperament balanced out his. I loved seeing the letters you two sent back and forth where Dad would ask you a question about physics or music and you would send back pages and pages of diagrams and explanations, all in language that even I could understand. Clearly you were a natural born teacher and I expect those CC students of yours sure appreciated you.

And then there was you singing "Going Home" at Dad's service - talk about bringing tears to my eyes... Well, that was a waterfall.

Mom loved you so much as well - such that, after that trip to the Sierra's in 1938 (or was is 1939?), she later said she wasn't sure which of the Bradley boys to fall in love with! You and Dorry were very important to her, and you remained in her life with love and grace even after the divorce. It doesn't always work that way, but thank goodness it did with you.

You made an impression on Nick too - to this day he remembers when we visited you and Dorry at your house up on the mesa. There was a gorgeous full moon out and you asked him what size coin would be the size of the moon if you held a coin at arm's length up to it - a nickel, a dime, a quarter? I think we all guessed wrong. That was so like you to always have a head-scratcher up your sleeve.

Well, dear Ric, we've been instructed to keep these to a reasonable length so you have a fighting chance of getting through them all, so I'll wrap up here. I'm thrilled to be able to celebrate your 100th with you and the rest of the gang, and please know that you always have been and always will be a treasure to me.

With much love and a hundred hugs, Bronnie

From Ben and Nicky - Great memories of mid 60s family camping trips with you.





This is what you look like when you spend enough time above 10,000 ft. HAPPY!



## From Ben and Nicky Happy Birthday Uncle Ric!



"Dig here!" Ric told Randy. Ric was the first of the twelve in the group (friends and family who had skied into the Lindley Hut, in the Ashcroft Valley for the 1987 version of what had become an annual ski trip) to the pile of snow at the bottom of the avalanche. Ric knew his nephew was buried somewhere in it, but where? Scanning the surface for any clues, he saw Mark's sunglasses. Being a physicist he quickly reasoned the snow at the surface would have continued to flow longer than the snow closer to the ground, and that Mark's body would be in the same fall line. Ric took the basket off his ski pole and used it as an avalanche probe. After repeatedly hitting nothing, he heard a faint "click". Wielding avalanche shovels, Randy and the others found Mark's ski down about 3', then his boot, leg, torso, and finally his face.

"Is he breathing?"

Yes, I was!!!

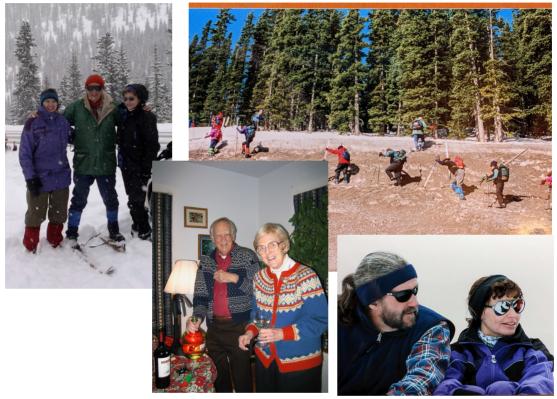
Everyone on that trip helped to successfully rewrite the almost certain ending of the avalanche I had triggered.

I THANK YOU ALL.



My physics career at CC started in '72, just as Ric (Dr. Bradley to me then) moved up to become Dean, although he did come back and teach some of the Intro to Physics & Calculus course that year. However my most vivid memory of Ric is from a cross-country ski trip a group of us took during one of my summers in Colorado. Many of the details are a bit vague after 50 years, but it was probably Breckenridge and perhaps it was 1977. We all skied up the slopes as the snow melted and came back down in the slush (and yes, we were still on wooden skies). What remains vivid after all these years is that when I commented to Ric that a steep, pristine slope starting just at over a three foot lip looked inviting, he pondered it a moment, then jumped up and over the edge, reversed direction, and wedeled down the 100 yards to a line of pines. I thought then, and still think – ah, that's how it should be done.

Happy 100th Birthday Ric!



These two amazing friends have added so much to our lives. We think of the hut trips. Monarch Pass trips, and wonderful dinners with friends who love the mountains. Your sense of humor, critical thinking skills out in the wilderness, warm personalities, and intellectual discussion topics are just a small part of everything we love about you!

Happy 100th Ric---and more lunches----



Thanks for being there, Ric, inspiring us all with your curiosity, easy smile, love of the outdoors, creativity, playfulness, and joie de vivre!



Here's to your photographic talents, Ric, & these 1947 memories.

# Alles schweiget

Volkslied



Learned on hut trips; sung to my kids many nights.

570 Move it-it's the Island ooouta here! the Yikes . () Michty G. no quns no torpedos no booze - No Captain no nuttin' - except Newtrined 大位 Abombs SELATON ? Only thing to do is marry her and play doubles ? So they married made kids & Music S and lived Happily ever after "Whose woods these are -"

To Ric: Congratulations on a century well lived! We have many fond memories of the hut trips we shared with you. You always have a twinkle in your eye, and those trips showed your good humor, kindness, patience and physical gifts, as well as your far ranging mind. We both tried and failed to become adept telemarkers under your tutelage, but we certainly had fun being in the mountains in winter with friends.

I am sure that the Lindley trip during which Mark was buried in the avalanche is burned into all our souls. You were the hero there: the only one with probe poles, the one who found the sunglasses, and the one who chose to go up the hill from that spot. What a happy ending there was for us all, and how fortunate that you were among the group.

Other hut trip memories are your last trip up to steep, steep Jackal at age 75(?), including your slow but graceful and controlled descent coming out. Derrick and Julia





### Dear Ric,

I remember how welcoming you were when I came to the Physics Department. One would have no idea of your status as a physicist, a musician, and as Dean of the College. Once you stood in front of me at my desk and wrote your name upside down and backwards easily and gave that smile of yours! I am so in awe of your 100 years and of the genuine human you are. You are truly treasured, Ric. Happy 100th. Judy vanTeylingen



Watercolor by Ric Bradley

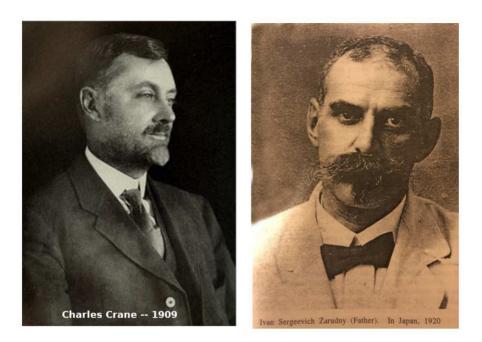
As scientist activists, the entire Bradley family were instrumental in working on some of the most important conservation challenges of our time, especially where rivers and dams were involved. Ric's brother Bill was my (and my late husband's) beloved professor of geology at CU. When Bill retired from CU, he was the geologist on our river rafting trips for 10 wonderful years. The best river trip of all was when Ric and Dorry joined one of our adventures on the Yampa and Green River and he told the saga of how his evaporation calculations stopped the infamous Echo Park Dam project. It was one hell of a fine night under a dome of stars! Physics and Music --

Ric always was a master physics teacher. I remember a visit to a music class I was teaching at Colorado College, where Ric gave a hands-on demonstration of sound waves and harmonics. Suddenly my music students became interested in physics.

I also remember a lecture Ric gave in Packard Hall, where he began by showing a large photo of Einstein. Our son Alex, who was about 10 years old at the time, was in the audience, and even though he was so much younger, he felt included in the lecture because he had recognized the photo. Later Alex became a physicist himself, specializing in atom interferometry. I like to think this was in part because of Ric's welcoming lecture.

Ric also shared with me some beautiful pieces he had written for piano and flute (for Dorry). I know his love of music and physics inspires many of us still today--these are the things that make it all worth while.

Tania Zaroodny Cronin



The Grandfathers' Story:

Ric's grandfather, Charles R. Crane, met my grandfather, Ivan S. Zaroodny, in 1921 in Japan. Heir to a large business fortune, Crane was a philanthropist and globalist. He was Special Commissioner to Russia (Kerensky regime) in 1917, and Minister to China in 1919. Zaroodny was a Russian engineer and inventor who had fled Russia in 1918, after his schoolteacher wife had been arrested by the Bolsheviks (under Lenin).

I don't know how they met, but I like to think the two men must have shared some conversation about freedom, democracy and the possibilities of business and technology. I think my grandfather played piano at a party where he met Crane. Crane took an interest in Zaroodny's children and a few years later arranged for my father and 5 sisters to come to the U.S. and put them all through college.

So I would not be here if it were not for the generosity of Ric's grandfather. And of course, our son, Alex Cronin, would not be here either.

Dear Ric,

We are all thrilled to be joining you for the celebration of your special birthday and the ceremony honoring the memory of the wonderful Dorry.

In looking back on my own multi-faceted role at CC, I certainly consider serving as you Associate Academic Dean as a special moment in my career. (You might remember that I also wore the hat of Dean of Students at that time.) The Dean of the College/Dean of the Faculty has to be one of the most demanding and challenging positions at the College. You accepted that appointment with uncommon grace and style. As I think back on your deanship, I have a few fond memories.

First, I would highlight the role that humor played in our shared responsibilities in the deanery. Do you remember some of the coping mechanisms?

Under the weight of a never ending stream of typed memoranda (No computers yet.), you corresponded with your Associate Dean by signing your name backwards. So we signed our private communications "CIR YELDARB and XAM ROLYAT! I once sent you a memo with every word spelled backwards. Not to be outdone, you responded with a memo with everything written upside down and backwards.

And I treasured some of the "deanly" aphorisms we used to cope with the decision making tensions:

"DON'T GIVE UP, MAX. YOU CAN'T WIN!"

"DO SOMETHING, RIC. EVEN IF IT'S RIGHT!"

Continued on next page



And Dean Bradley's yearly advice to new students at our opening New Student Week Convocation:

"IF YOU FIND YOURSELF BORED AND STRESSED, WALK UP PIKES PEAK. IF YOU ARE REALLY BORED AND STRESSED, RUN UP PIKES PEAK."

And don't forget, that you and I followed that advice to new students. Remember? Every August during your deanship, we got up early one morning and hiked to the summit of the Peak to start the new year—sometimes joined by others such as General Rocky Crawford and visiting physicist Lou Salter.

It's said you can make a physicist a Dean, but you can't take the physicist out of a Dean. Remember those experiments demonstrating the laws of physics that you challenged your staff to solve? The swimming pool with a flat bottom boat containing a large boulder. What happens to the water level in the pool if you take the boulder and drop it into the pool? Does the water level go up or down?&nbsp: finally brought a miniature version of the experiment to the office—a small tub with a toy boat and a large rock. Now did that water level go up or down? And what is the law of physics governing it? <code>shopfum stuff!</code>

And to tweak your memory a bit more:

Bradley's "Sierra Song" composition performed in Shove by Don Jenkins and the CC Choir.

Bradley's inspired performance of "The St. Matthew Passion" also in Shove.

Congratulations, Ric (aka Cir Yeldarb)

With much love and respect from Max (aka Xam Rolyat)

### Contributors

Erik Vaag lim Heckman Tom Jervis Sean Curtis **Kristine Lang** Carol and Dave Kampert Hans Krim Debby and Rick Levinson Walt Hecox Dottie Lamm **Dave Phillips** Val Veirs Leslie Veirs Mary and Ted Bruning Matt and Mary Hecht Kathy and Ted Lindeman Charlie Crane Charlie Paterson Laurel McLeod **Bill Moninger** Do and Dan Bradley/Horwitz Charles and Sue Bradley Horst and Helen Richardson **Carol Townsley** 

Bob and Ellen Cornet Melanie and Rick Rohrbach John Simons **Brad Bradley** Mike Edmonds Genevieve and Phil Lopez/Boudreau Teamai Teave Williams Shane and Stormy Burns **John Watkins** Barbara Whitten Jo and Larry Lopez Helen Williams **Rick Bradley** Nicky and Ben Correo/Bradley Bronwen Ballou Mark and Shelby Bradley Clem Burton Beth and Bob Carlson Scott Veirs Julia and Derrick Robinson Judy van Teylingen Tania Cronin **Audrey Benedict** 

In Memoriam Randy Bobier was a founding member of Uncle Ric's Group and led us on winter adventures in the Colorado Rockies and in the Sierras for many years. We so miss his tireless energy, infectious humor and good judgment.



Ric and Randy in Tuolumne Meadows, Yosemite National Park



**Randy Bobier** 



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### Charles, Harold, Dave, Steve, Joe, Ric, and Bill Sequoia National Park, CA, 1928

Ric reports (May 1, 2022): I have childhood memories of watching the sunset from Beetle Rock (Sequoia NP), and the awesome views from Morrow Rock, high above the Valley We had a base camp near a little creek camp not terribly far from the Giant Forest Village. I'm 3000% certain it was Giant Forest,.

Book prepared by Leslie and Val Veirs