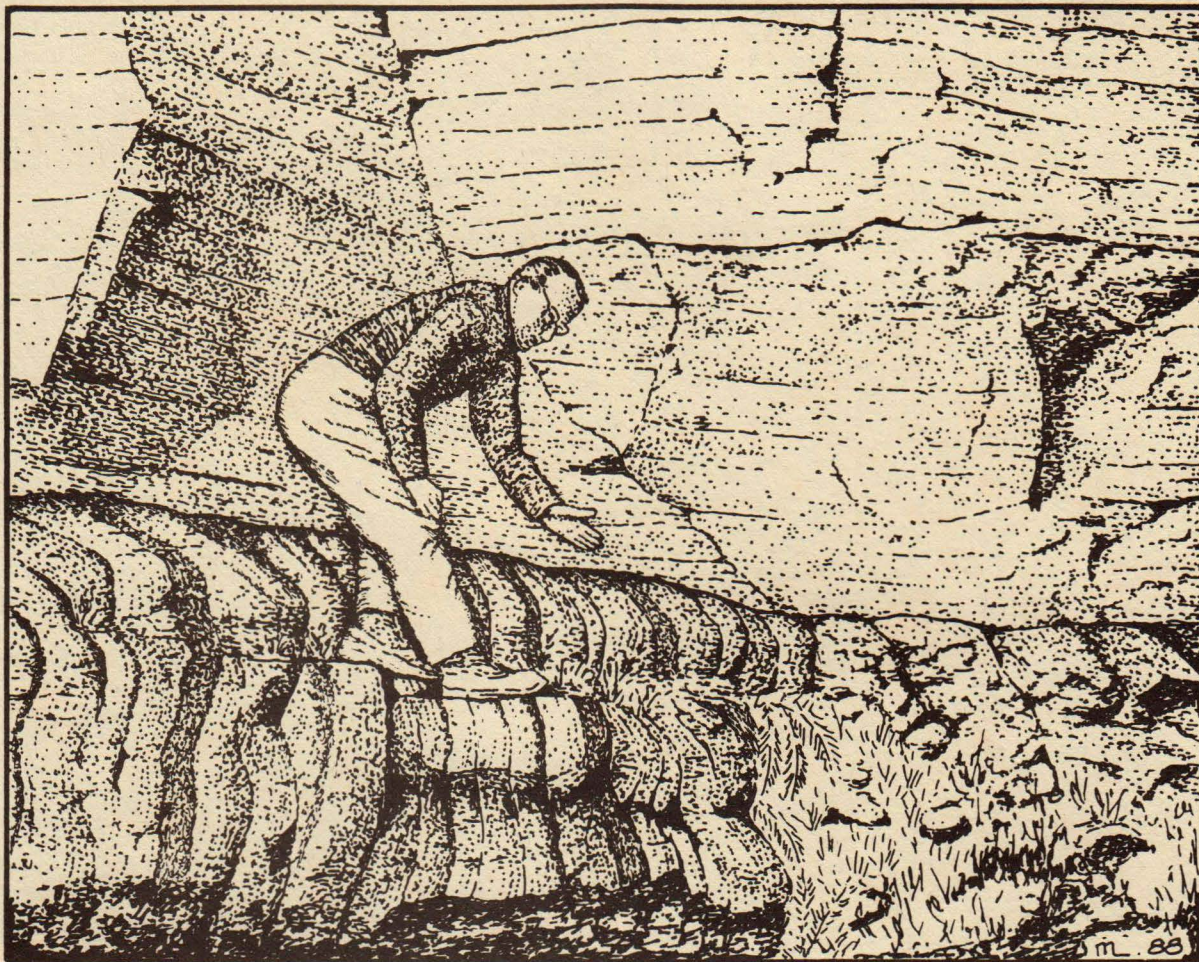


LEO M. HALL

TEACHER, COLLEAGUE AND FRIEND



CONTRIBUTION NO. 62
DEPARTMENT OF GEOLOGY & GEOGRAPHY
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASSACHUSETTS



Leo M. Hall

Teacher, Colleague and Friend

A Commemorative Booklet

Edited By

Peter Robinson,
Virginia L. Peterson,
Peter T. Panish,
Page Fallon,
David C. Elbert,
Jonathan L. Burr,
and
Henry N. Berry, IV

Contribution No. 62

Department of Geology and Geography

University of Massachusetts

Amherst, Massachusetts

February, 1988

Foreword

At the time of Leo Hall's passing in late 1985 the Department of Geology and Geography established the Leo M. Hall Memorial Fund for Student Field Work. In the process of informing former students and friends about this fund we also requested that reminiscences and notes concerning Leo, as well as suitable photographs, be forwarded for incorporation in a commemorative booklet. This is the result of that appeal.

Testimonial given at Newman Center Chapel,
University of Massachusetts, Amherst
December 30, 1985

I feel privileged to be here this morning on two counts. First, I'm glad that as a Jesuit priest I can concelebrate this liturgy of the Resurrection in which we prayerfully usher into eternal life our friend and colleague, Leo Hall. The time of death is always one of sadness because it involves a parting that seems all too final. Nevertheless, from the viewpoint of our religious belief, we look on death as our final transformation into a "cosmic spirit-person", free of the constraints of time and space and enjoying the intimate vision of the triune God forever. As such I believe that this new life -- we call it heaven -- must bear some relationship to one's life on earth in all of its dimensions, and especially our relationship to our loved ones, one's lifestyle and to one's life work in all of its aspects.

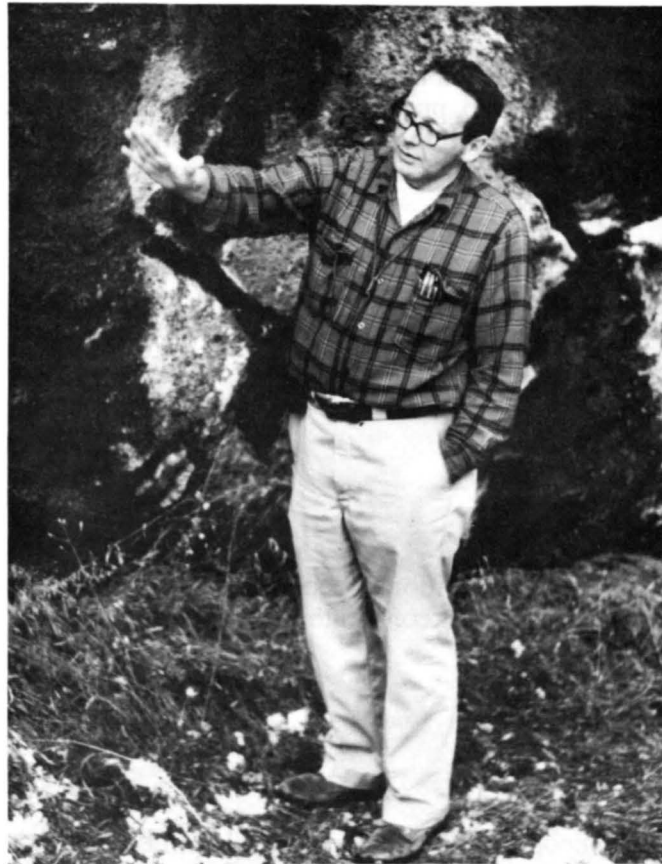
Secondly, in my other role as a fellow geologist, I'd like to put certain aspects of Leo's life and achievements into a perspective that I hope may be helpful. I have been acquainted with Leo since he began his graduate studies at Harvard about 1956. This was shortly after I had completed my own doctoral studies there, also in the same field of specialization, namely, the production of structures in the deep interior of mountain belts. Leo completed his studies at a time when the application of structural geology theory to complex field problems was undergoing a rapid transformation. He grasped the importance of these changes and in fact was a pioneer in applying the principles of structural sequencing to the intricate geology of northern Vermont, the Baltimore, Maryland area, and to eastern New York State and western Connecticut.

The sound pioneering observations and interpretations contained in Leo's many publications, which he both authored and co-authored have led to his being recognized as a geologist of stature not only in North America but also abroad. A leading textbook in structural geology published last year cites Leo's work and that of one of his co-authors, Peter Robinson, rather extensively. To some of you not acquainted with the complexity of the geology of the Appalachian Mountains that Leo dealt with, his standing in the field may come as a surprise because he was personally a quiet, self-effacing scientist, who, if anything, might have underestimated the significance of his own contributions.

For several years I have been associated with Leo in the International Geological Correlation Program concerned with correlations between the Appalachian and Caledonide mountain systems of North America and Europe and in turn their relationship to northwest Africa. Leo contributed significantly especially to a better understanding not only of the late Precambrian but also of early Paleozoic phases of deformation (those developed from about 1 billion years ago to about 350 million years ago). As we gather together in this house of prayer to say farewell and to remember Leo Hall's life and its meaning for us, I can truly say that he combined admirably the difficult roles of a productive, authentic scientist and inspirational teacher with those of a beloved husband and parent, a helpful professional colleague, friend and role model. I can choose one example of the admirable way in which he combined the human and academic aspects of his life. Three years ago he and JoAnne spent a sabbatical year in Britain. The early part of each day in the Scottish Highlands he worked in the field and she cycled until time for tea about 3 p.m. when they met at some pre-determined location. He made times in his life for all the many people and activities that he considered important to him. I feel sure that each one of us has our own memories and stories that illustrate the quiet intensity of the several phases of Leo's life.

In summary let me say that each one of us on several continents whose lives he touched has been enriched academically and in many other ways by his complete dedication to authenticity and integrity mixed benignly with humor and kindness in every aspect of his life.

Rev. Prof. James W. Skehan, S.J.
Weston Observatory
Department of Geology and Geophysics
Boston College



He was respected and admired by every undergrad who had the privilege to take his courses. To all of us he represented the outstanding Field and Structure program at U. Mass. He will not be forgotten by any of us who strode after his untiring lead in the field. I think a fund for student fieldwork is a fitting tribute.

Anthony D. Leavitt
Maine Dept. of Environmental Protection
Former Undergraduate student

In the summer of 1959, Leo and I were engaged in reconnaissance geologic mapping in the southwestern Adirondacks. One day we came upon a lake used as a summer vacation spot, and on the lake I noticed a canoe. I called Leo's attention to this by saying "Oh look at the green canoe." To this he replied, "Well at least it's green on this side."

Yngvar Isachsen
New York State Geological Survey

Leo brought home many honor certificates.. I still have a plaque on the wall from when he was class president at Stetson Junior High School in Philadelphia ...and he was good in high school also.

When he was on sabbatical I visited him in England. He took me to the town where I was born--called Casalnuovo, provincia di Napoli, Italy. When he met his relatives he was amazed to see how tall they were. One young fellow had hurt his foot playing italian football and was in bed. Leo got a big kick out of that--he was longer than the bed.

After that we made the usual visits to Naples, Rome, Florence, Venice, Milan, Geneva and Paris. We crossed the Channel at Dover and I was surprised to see the pure white chalk. Leo explained to me what it was. I stuck out my chest to know how smart my son was.

Angelina R. Hall
(Leo's mother)

No doubt his work will receive additional recognition in time but the students that he taught and otherwise influenced will constitute a major contribution to our science.

Robert D. Hatcher, Jr.
University of South Carolina

How often we take the people around us for granted, without really knowing them. Leo's approach in Metamorphic Structure made me realize how little I knew, and how much could be learned by thorough study of single outcrops. His method in geology requires patience. Leo's patience with his students matched his patience with the rocks. Who else would stand in the rain at Clarendon Gorge at the end of a field day, and listen to each of eight teams of students describe what they'd found? "We got the same results" didn't satisfy him. If I can bring even a fraction of these qualities to my teaching I shall be thankful.

Peter J. Thompson
Cornell College, Iowa
Former Ph.D. student

He was a great geologist and a great guy.

Hank Williams
Memorial University of Newfoundland

Two years ago this past summer, we arranged to spend a day together up in the St. Johnsbury area looking at some rocks which he had mapped for his thesis and which I had been looking at for another project. We had a wonderful day sharing ideas and thoughts on the rocks, and toward the end of the day our travels pointed us up a fairly long steep hill. I was in pretty good shape, and having legs about twice as long as Leo's I figured I would go up the hill and wait for him on top. Little did I know. When he went by me I began to really give it my all, only to see him fade into the distance ahead of me. Mercifully he had to stop for an interesting outcrop, and when I puffed my way up to it and asked how on earth he did it, he had a ready simple explanation. JoAnne had gotten him interested in bike riding, and, as he pointed out, the muscles that you use to ride a bike are the ones you use to climb a hill. So much for my long legs.

A year ago this past fall after the Geological meeting in Glasgow, Leo and I were signed up for the same week-long field trip, and we ended up sharing a room for the week. ...once again I learned a lot from talking to him about the rocks and seeing things through his eyes. He was a born teacher, and although I was not theoretically his "student", for all practical purposes I was. It was a wonderful week, and although it would have been a good trip without him, it was a wonderful trip with him.

The last time I saw Leo was this past fall at the annual N.E.I.G.C. meeting. I went on the trip he co-led on Saturday. ...through it all shone Leo the teacher. Tom Spinek was the principal leader of the trip and Leo very properly let him take the lead in the discussions, but every once in awhile it was appropriate for Leo to step in, and the way he did it was a joy to watch.

Some years ago I had the opportunity to accompany Leo when he took his students in his graduate field course out for the day. I think that that was the first time I saw him in action as a teacher, and what a delightful experience it was. Their respect and admiration and love for Leo was plain to see and thoroughly earned. My instant reaction was to wish that somehow he could have been my professor, and to greatly envy the students who could benefit from having him for theirs.

I believe that the qualities which made him such an exceptional teacher were the same qualities which made him such an exceptional person. He was so generous of his time and himself. He was completely unselfish. He knew perfectly well that professional "success" in the eyes of his colleagues could best be achieved by closing his office door to students and writing papers on esoteric subjects. But his inherent generosity and love of teaching would not permit that. The result is that he has left us with a somewhat smaller number of papers that will have a much more enduring impact on his profession, and generations of former students whose training from Leo will continue to influence the profession for many generations to come.

Norman L. Hatch
U.S. Geological Survey

He was a strong influence in my decision to study geology, a great source of guidance, and a friend as well. I consider myself lucky to have been taught geology by such a good professor and person.

Silvia M. Heinrich
Former Undergraduate student



Although it was almost thirty years ago, it seems only a few summers have gone by since Leo and JoAnne invited this city person to Vermont. JoAnne let me know that Leo would be up early to go into the hills. Naturally, he had departed before my eyes opened.

He returned for me later. He set a grueling pace. No students were accompanying him that day. Knowingly, he told me where to wait for him as he bounded up and around. That is the way I remember him. Up and down. Over to the left and then to the right. Then, back the other way. He was deep in thought--oblivious to everything except that for which he was searching.

We returned to JoAnne and the children. Patrick was only a toddler. LeeAnn, I believe, was an infant. Leo certainly would have gone out again to look for more samples. Yet, he knew he had exhausted my limits.

Mannie Fontana
(Leo's cousin)

He was, indeed, an excellent geologist and teacher and a very fine person. Besides his very correct emphasis on field work, I also remember emphasis on "professionalism". I'm sure his example has molded many "students" into "geologists". I am one.

Penny Stoeck Althoff
Former M.S. student

Leo inspired a number of us to pursue careers in the geosciences and in structural geology in particular. I know that without the instruction and example of Leo Hall, both in the classroom and in the field, I would not be where I am today.

Herbert M. Spitz, '78
ARCO Exploration Company
Former Undergraduate student

Leo had a tremendous impact on the geology of the northern Appalachians in the form of his own work, his teaching, reviews of colleagues efforts, and informal discussion. His influence went far beyond our region to be sure, but it was here in New England that it realized its full impact. By example, he taught each of us a high sense of professionalism, patience, and humility. His students that continued their education at Vermont were not only well trained but knew the meaning hard work, dedication, and loyalty. His presence will be deeply missed. We have lost a true scholar and dear friend.

Rolfe Stanley
The University of Vermont

He was such an energetic and active person--yet he always seemed to have time for his students.

David Hutchison
Hartwick College

I knew Leo for sixteen years. It was through his patient guidance and teaching that I was able to complete two degrees. I will have fond memories of Leo for the rest of my life. His professional excellence and highest standards of perfection will accompany me during every field excursion. I find myself asking, 'How would Leo interpret this outcrop?' We all try to find the one, subtle lineation that Leo could always see so clearly.

Richard A. Jackson
Former M.S. and Ph.D. student

Eulogy Delivered December 30, 1985

It is fitting at a moment such as this, with a diverse group of friends gathered together, to call attention to several aspects of a person who affected many of us deeply and in many ways. There are many others, whom I have been in touch with in the past several days, who would like to be here. These include Norm Hatch, and many others at the U.S. Geological Survey, the Geologist of the State of New York and many associates; Phil Hewitt, Fred Mumpton and associates at SUNY Brockport; Marland Billings; Howard and Elizabeth Jaffe; Bob Tracy and others.

Leo Hall was a native of the St. Lawrence Valley of northern New York, an undergraduate at St. Lawrence University, and subsequently an authority on the geology of that region. Like many of you here today, my first encounter with Leo was as my teacher, in 1958, at Harvard, where he served as the power behind the chair of Prof. Marland Billings. To be Billings assistant was a prestigious position at that time, held by persons who went on to distinguished careers, including the present Director of the U.S. Geological Survey. At the Christmas party that year the song about Billings concluded with the line "HEY LEO, where's that paper I wrote three years ago?" In spring 1960 we looked on in amazement as Leo finished not only his thesis on the St. Johnsbury, Vermont area, but a color map and bulletin published by the Vermont Geological Survey.

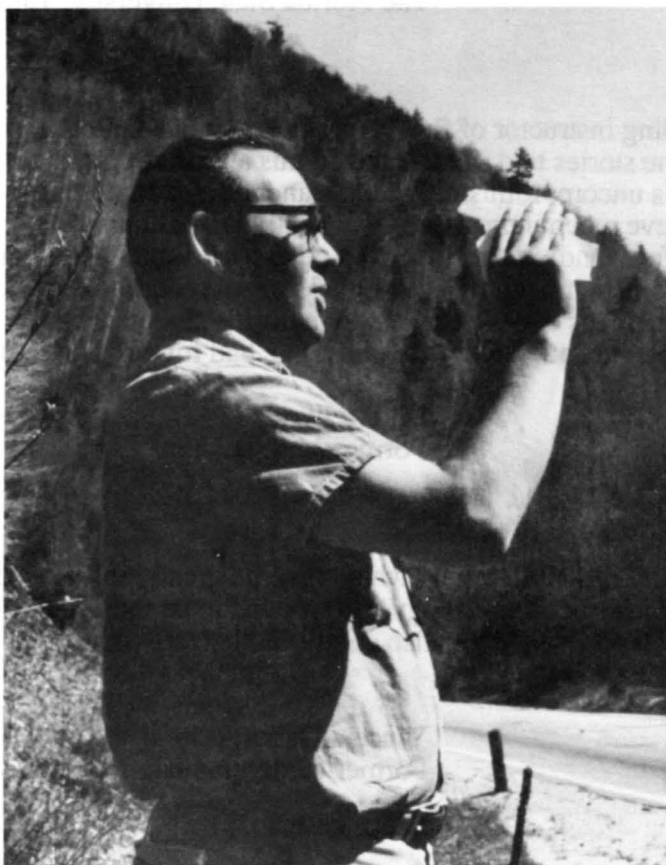
Following a short stint as a Lieutenant in the Army, Leo acquired a teaching position at Union College and was soon back on the New England scene, where he joined Billings, Skip Crosby and others to provide me with vital field advice in my thesis area. In summer 1962 he was invited to a Field Institute in the Swiss Alps, which left a lasting impression on his teaching and tectonic thinking. It was during the Union days that Leo joined the program of the New York Geological Survey to map the White Plains area and revolutionize our understanding of the geologic history of the New York City area. From this start has spread a host of studies by Leo and students eastward and northward into Connecticut, not to mention the outstanding reinterpretation of the Baltimore, Maryland area by the late Bill Crowley, one of Leo's outstanding former undergraduates from Union. These years were punctuated by annual field gatherings of friends in late summer to explore problems in the Adirondacks and New England. In spring 1965 Leo led a trip in the Adirondacks for my U.Mass. structure class, and here I met Leo's St. Lawrence classmate, Fred Mumpton, through whom contact was made with mineralogist Howard Jaffe, who shortly joined this Department.

Shortly after this, administrative ignorance at Union caused the break-up of an outstanding two-man Department consisting of Hall and Phil Hewitt, and we here were able to attract Leo to strengthen our growing program of field and structural geology. For the next two decades nearly every U.Mass. geology major and most graduate students felt the indelible stamp of Leo's meticulous training, as well as warm friendship. In Amherst, Leo became a participant and subsequently a leader in the Amherst Hockey Association, to which some of you are still devoted today. In 1972, E-an Zen organized one of the first Penrose Conferences, one of the most prestigious activities of the Geological Society of America, which was held here at the University. As part of this, a committee of five compiled a lithologic map of all New England and eastern New York. Leo's contribution was merely all of western Massachusetts, all of western Connecticut, and eastern New York from Manhattan to the Canadian border. From this sprang a whole series of compilations and map projects including two papers on the tectonics of southern New England on which I was privileged to be his co-author; the Bedrock Geologic Map of Connecticut, and eastern New York, edited by

John Rodgers, Professor Emeritus at Yale and world authority on the Appalachians; the Time of Deformation Map of the U.S. Appalachians with Philip Osberg, the dean of New England bedrock mappers, and others; the basement map of the U.S. Appalachians with Avery Drake and others; a series of papers and lectures for the International Caledonide project; and papers on the Precambrian of the Appalachians with Doug Rankin and on the Precambrian of the Adirondacks with Jim McClelland. The last is a result of Leo's return to his first love with several students and with cooperation from Howard Jaffe. Through the Caledonide Project Leo opened up a sabbatical opportunity for 1981-82 with Tony Harris at the University of Liverpool and in the field in the Scottish Highlands with Tony, Doug Fettes of the British Geological Survey, and others. On a return trip in 1984, Leo presented his innovative interpretation of highland structure based on his experience on the ground and his understanding of comparable features in the Appalachians. Few American field geologists have made such a strong impression and so many friends abroad.

This rather dry recital of facts does little to expose the character of Leo's contributions. He was an enduring resource of factual information, a sounding board for ideas of all types, a sensitive observer of personal feelings, and a tireless worker to help others bring their work up to his own high standards. For years, when an idea, a new development, or a good story has entered my mind I've automatically been on my way down the hall to share and consult with Leo. Others certainly have done the same. I'm sure those trips will continue. How could an absent-minded professor avoid it? But there will be no more reward at the end.

Prof. Peter Robinson
Department of Geology and Geography
University of Massachusetts



Dr. Hall was my advisor, but that really says nothing of his role in my academic life. It was he to whom I first tentatively spoke about majoring in geology. He was unconcerned about my being female in a "man's field" and enthusiastically encouraged my choice. His enthusiasm was pervasive; he always seemed eagerly pursuing something and to be totally, sincerely, infatuated with geology. He greatly enhanced my perceptions.

It was my wonder--full geology major which carried me through the frenetic college years. Were it not for Dr. Hall, I am convinced I would have given up on college, which I had found disillusioning my first semester.

Stephanie (née Le Bell) Bradley, '71

Leo was my student at the University of Cincinnati. Nostalgically I remember Leo with pride and pleasure from those days. When I moved to the northeast in 1964 Leo was the first to take me into the field and acquaint me with the regional and local geology.

Gerald M. Friedman
Brooklyn College

He was both a highly respected professional colleague and very genuine person. His Appalachian colleagues will especially miss his presence and continued high quality contributions to the science. It is indeed fitting that you have established a fund for student field work to honor him.

James F. Tull
The Florida State University, Tallahassee

He was truly the most outstanding instructor of field geology I ever encountered, both for his depth of understanding of the stories told in rock and for his ability to communicate that understanding. I found that his uncompromisingly high standards for student performance compelled me to achieve much more than my typically lazy self would attempt, and to enjoy doing it. I often fondly recall Leo on a crisp New England fall day, full steam ahead on the trace of a contact, trailed by a crowd of students eager to learn the tricks of the trade. His love for rocks was equalled by his love for his students, which was repeatedly demonstrated by personal attention and concern he had for our progress.

Bill McIlvride
Former M.S. student

I was a student of Leo's from 1977 to 1981 during which time he greatly influenced my career, and sparked my interest in structural geology. Leo proved to be indispensable as an advisor on career decisions. His influence has also contributed greatly to my self-confidence and independence.

Vincent DelloRusso
Former Undergraduate student

Waking up in the middle of cold New England night to get to Morrill Hall by 5:30 AM for Leo's field mapping course was enlightening. Leo would drive the red van to White Plains, N.Y. while three or four of us students sat wearily or slept. Leo was always bright-eyed and smiling, ready to work. He seemed more like a combination of marine sargeant and lumberjack than a college professor. I would think: This is what a geologist should be. Leo would joke with me about his days in New York City.

Arriving in the field area, we would stop for hard rolls and coffee in Armonk. We became friendly with Amy, the coffee shop waitress. Then Leo would drop each of us students off in our assigned mapping areas around Silver Lake and the reservoir. We spent the entire day mapping. Leo would spend an hour or so with each of us individually and the rest of the time studying outcrops. Which is older, the Fordham Gneiss of the Yonkers Gneiss? Leo was interested in our observations and ideas.

Later, we would meet him for the drive back to Amherst. Leo was still smiling and fresh. We arrived tired in the evening. I was always amazed that Leo would be in his office, ready to go, at eight o'clock the next morning. Leo taught through his dedication and love for field geology that hard work and discipline bring the geologist life's greatest reward--happiness.

Fred Adinolfi
Former Undergraduate student



...The enthusiasm that Leo shared with all of us--students and colleagues alike. As here on the Vassalboro, he helped hone our recognition of primary structures among deformed early cleavage in metasedimentary rocks. As for St. Johnsbury...the Monroe fault is alive and well--its extension to the north appears even more significant than Leo suggested for the Connecticut Valley-Gaspé synclinorium.

Wallace A. Bothner
Jo Laird
University of New Hampshire

Most faculty and students of geology at U. Mass are familiar with the unconformity exposed between Ticonderoga and Whitehall, N.Y. on Route 22, where vertically dipping Precambrian gneiss is overlain by horizontal beds of Potsdam sandstone. On one field trip (undergraduate petrology and structure) in the '70's, Leo called the bus to a halt, one outcrop too soon, jumped out and up onto the outcrop, and began his rapid-fire lecture on the unconformity. At this outcrop there was nothing but Potsdam on Potsdam. This provided great comic relief and we dubbed it the Leo Hall Memorial Outcrop. He jumped back into the bus, we rode to the next outcrop, where Leo preserved his credibility and lectured anew on the well-exposed unconformity.

Although this sounds like a fish story--it is indeed--and is true. On another field trip Leo took me to a small brook, off the beaten path in Elizabethtown, N.Y., in which he claimed there were trained fish who would leap on command. They were not observed to jump that evening and Leo noted that we had arrived too late in the day and we should try again next year.

Howard W. Jaffe
University of Massachusetts

He was an inspirational professor and friend. I enjoyed returning to visit with him from time to time. I think the interest he took in me as a student and graduate are largely responsible for the success I've had in graduate school and professional life.

Scott Bailey, '82

It was not one of the privileges of my life to know Leo very well, but on those few occasions when I did meet and interact with him I was impressed by his complete dedication to unravelling the complex geologic relations in our part of the world. I was also impressed by his modesty and quiet dignity. I like people like that and I liked Leo.

Brian J. Skinner
Yale University

Leo's dedication to field geology and vast knowledge of field lore was a great inspiration to me and to all of his students. Leo's enthusiasm was infectious, his criticism always cogent and tempered with encouragement.

Jim Beard
Dept. of Mineral Science
National Museum of Natural History
Smithsonian Institution
Former Undergraduate student

I haven't known Leo Hall well, but it was always clear that he has been one the good, worthwhile, and concerned geologists of New England. I've talked with him about some of his students and was always struck with the perspective and understanding he had about both geology and people.

Brewster Baldwin
Middlebury College



Leo introduced me to geology through an introductory mineralogy class. Like so many others, I never had anything but good thoughts and experiences with the man. ... A truly generous and dedicated soul.

Richard O. Sack
Department of Earth and
Atmospheric Sciences
Purdue University
Former student of Leo's at Union College

My last memory of Leo was the Saturday of this Fall's NEIGC (1985). Leo was helping one of his students run a trip--amid high winds and drenching rain! Physically uncomfortable we all were, but Leo's humor and great enthusiasm is the most lasting memory. We will all miss him. A chat with Leo was always a warming feature of my trips to Amherst.

James B. Thompson, Jr.
Harvard University

We all entered Harvard as graduate students in 1956, and, after graduation, dispersed to different parts of the North America. ...I will always remember Leo as a very pleasant, sincere, and dedicated person, and a person of some modesty and humbleness considering his many talents and accomplishments.

Alan V. Jopling
Toronto, Canada

...Leo was an old friend with whom I shared many stimulating and pleasant hours in the field when we were both struggling with the geology of southeastern New York.

Robert T. Dodd
SUNY, Stony Brook

There is little question that Leo had a profound influence upon my professional development. Entering the University of Massachusetts in the fall of 1967 as a Master's candidate at the "advanced" age of 37... I entered the department feeling just a bit uneasy and conspicuous. While I was feeling this great uncertainty I received a call in late August requesting that I go sit down with Pete Robinson and Bill Bromery (then himself brand new in the department) to discuss my situation. During the course of that meeting in Pete's office Leo wandered in and we met for the first time. Leo was another who at that time was just beginning his stint at the University. His immediate attitude toward my situation was to the effect that it was never too late to start and I already felt more encouraged.

During my three years at the University Leo definitely took a personal interest in my work and I soon realized that he was a faculty member I could talk to rather openly and we became rather good friends. There still remained something of the faculty/student relationship barrier, at least within me, which meant that I felt that I had to be just a bit distant yet I probably received as much encouragement from Leo as anyone to keep going when things seemed overwhelming. It was indeed Leo who heard my problem as to how I was going to fulfill my obligations as a field assistant. He took immediate action, literally that minute, by hustling me right down to Pete Robinson's office knowing that Pete was looking for a summer assistant. My subsequent relationship with Pete led to a thesis project and directly to my professional position as geologist with the Metropolitan District Commission (now turned Massachusetts Water Resources Authority). Had it not been for Leo's response to my situation I doubt that I would be where I am today because it is very uncertain that Pete and I would have managed to get together on our own.

David D. Ashenden
Former M.S. student

Leo Hall was somebody special, a field geologist and friendly person.

Peter Stringer
University of New Brunswick

I will miss Leo. He was my teacher first, later my friend. I and many others spent memorable moments with him on field trips, and getting there was always an experience. His driving induced the same jolt of terror in me that I imagine others must feel when I am behind the wheel. I always admired that. Leo taught me the pain and pleasures of the stereonet, of F one through twelve. I will remember him for these things and also because we had some great times together. He was a hell of a nice guy.

Lewis D. Ashwal
Lunar and Planetary Institute, Houston
Former M.S. student

In 1955 Charlie Doll chose well when he assigned the St. Johnsbury Quadrangle to Leo Hall. The geology was tough; outcrops were sparse. But Leo was persistent and hard-working. At the University of Cincinnati he prepared a fine MS thesis on a metamorphic problem within the St. Johnsbury Quadrangle. After leaving Cincinnati he completed the quadrangle mapping, which was published by the Vermont Survey in 1959. In those years, visiting him in the field, I remember the thoughtful appraisal he gave each bit of new information as he put together the complex stratigraphic and structural history.

Leo accepted the tough problems as they came, and made full use of his early experience as he went on to study the complex structural history of southeastern New York and adjacent New England. He will indeed be missed.

William F. Jenks
Consulting Geologist

Again, my thoughts remember Leo, and I feel lucky to have been able to know him; as both a teacher and as a gentle man who often looked the other way when we natives were being unreasonably restless.

Julie Dyer
Former Undergraduate student



Remarks Given on December 30, 1985

Leo Hall's professional friends, colleagues and students shared with him a love for the study of the earth and went to distant places as part of that study. Today some of his colleagues in the Department are scattered over Europe, Africa, and Australia in those pursuits, and his former students are equally widespread to the corners of the globe. They are at least here in spirit for both as a profession and as a Department we operate as an extended family. These remarks are on behalf of that other family of his both present and far afield.

Each year the University requires a formal evaluation of every faculty member. This is done in part by an elected and appointed committee of Departmental faculty members. The following is a excerpt from that statement written about Leo by that committee of his peers a little over a month ago:

"Comments of Department Personnel Committee.

In terms of major writing projects and communicating the results of his research to the profession in various forms, 1984-85 stands out as the busiest year of Leo hall's career"

There then follows a listing of geologic achievements of the last year to which Pete Robinson has already referred. The document then continues:

"Through this Leo carried a normal teaching load of essential undergraduate and graduate courses, the third highest load of graduate student supervision and committees in the Department, and was one of three members of the Graduate Studies Committee. Leo's long-term consistent performance along a very broad front has been the key factor in establishing this Department as a center of strength in the training of geologists for field research on complex structural features and as a center for comprehensive contributions to the Appalachian Orogen.

To this might be added the personal level of teaching Leo expends on his graduate students. The extent of care and encouragement he provides in their supervision and the attention to training them as observers and interpreters in a one-on-one environment is rarely equalled in this Department".

That was the official departmental statement of his professional reputation, but there is another kind of reputation which is just as real and probably more important as a measure of an individual -- that is the personal reputation he has among the people with whom he works, day in and day out.

Here, too, Leo had a most impressive reputation:

Leo was very demanding of his students and his colleagues but also very supportive of them. People looked to him for help of all kinds, knowing they would receive honest and fair opinions and treatment of their problems. He was always ready to do more than his share of whatever was required, about any personal situation--no matter how justified that help might be. He was persistent--little got in the way of things he considered important, like going in the field with his students. Neither health nor weather stopped him--one field trip in a blizzard to southern Vermont is still talked about and well-padded Leo, in his big blue parka, was lovingly referred to by the

students as their “giant blueberry.” Through everything, Leo was fundamentally gentle and sweet--except on two subjects. One was when people took a geologic hammer to one of his favorite outcrops and the other was when he was behind the wheel of a Departmental van--then the tiger showed!

Fundamentally Leo was genuine from the top of his blue parka to the bottom of his field boots. He was not particularly verbal or preachy about things and certainly did not gush about things even though he considered them very important. His was the solid strength, like the outcrops he loved. All of us mourn but also salute Leo Hall as an esteemed scientist, teacher, colleague and above all as a friend.

Donald Wise, Head
Department of Geology and Geography
University of Massachusetts



Leo M. Hall Memorial Fund and Award

"The Leo M. Hall Memorial Award honors the memory of Leo M. Hall, Professor of Geology at the University of Massachusetts from 1967 until his death December 26, 1985. Professor Hall was a leader in the interpretation of the Appalachian Mountains in New England and adjacent New York, and an outstanding teacher of structural geology and its application to complex problems. Annual proceeds of the Leo M. Hall Memorial Fund will be used to support geological field work by students of the Department of Geology and Geography, University of Massachusetts, Amherst. The preferred use is for direct support of field research or field course work, but there is no intent to restrict the recipient(s) use of the funds. Choice of recipient(s) will be the responsibility of the Geology Faculty and the Head of the Department of Geology and Geography, who may solicit assistance of other persons (including students) if they wish. Recipients should be excellent students, and should exhibit outstanding promise as future members of the geological profession. A strong interest in field geology will be important, but not required. The decision to award the proceeds in any given year should be that of the Faculty and the Department Head."

Your idea to endow a fund for student field work is surely exactly what Leo would have approved of. Let's hope it contributes to the development of more Leo Halls.

Win Means
State University of New York at Albany

This is a fine way to remember Leo, and I hope the fund grows. I was lucky to have been on what must have been one of Leo's last field trips, at the NEIGC this fall (1985).

John Lyons
Dartmouth College

Leo and I shared a type of kinship in that we both arrived at UMass at about the same time. He was a new professor and I was a new graduate student. We used to share that commonality of being "new kids on the block". This was enhanced in that my graduate office was located right across the hallway from his. We used to talk in the evening between work breaks.

He was really dedicated to educating students. After failing my comprehensive exam in structural geology, he took a vigorous interest in making sure I passed it the next time around. I remember not being too concerned about the retake. Leo sensed this and came into my office one day to advise me that if I didn't shape up, I'd fail it again. Good advice--I wouldn't have passed if he hadn't made that little visit.

Albert C. Hine
University of South Florida
Former M.S. student

Leo was my lab instructor in structural geology at Harvard and gave me an F for my lab work--so I became a petrologist.

(name withheld)



BIBLIOGRAPHY OF LEO M. HALL

- Hall, L.M., 1959, The geology of the St. Johnsbury quadrangle, Vermont and New Hampshire: Vermont Geological Survey Bulletin, no. 13, 105 p. Hewitt, P.C., and Hall, L.M., editors, 1965, Guidebook to field trips: New York State Geological Association 37th Annual Meeting, Union College, Schenectady, New York, 111 p.
- Hall, L.M., 1966, Some stratigraphic relationships within the New York City Group in Westchester County, New York (abs.): Geological Society of America Special Paper 87, p. 70.
- _____, 1968, Bedrock geology in the vicinity of White Plains, New York. *In* Finks, R.M., ed., Guidebook to Field Excursions: New York State Geological Association 40th Annual Meeting, Queens College, Flushing, New York, p. 7-31.
- _____, 1968, Times of origin and deformation of bedrock in the Manhattan Prong. *In* Zen, E-an, White, W.S., Hadley, J.B., and Thompson, J.B., Jr., eds., Studies of Appalachian geology: Northern and maritime: Interscience Publishers, New York, p. 117-127.
- _____, 1968, Geology in the Glenville area, southwesternmost Connecticut and southeastern New York. *In* Orville, P.M., ed., Guidebook for fieldtrips in Connecticut: New England Intercollegiate Geological Conference 60th Annual Meeting, Yale University, New Haven, Connecticut; and State Geological and Natural History Survey of Connecticut, Guidebook no. 2, p. D6-1 to D6-12.
- _____, 1969, Should the term "New York City Group" be maintained? *In* Alexandrov, E., ed., Symposium on the New York City Group of formations: New York State Geological Association 40th Annual Meeting, Queens College Press, Geologic Bulletin No. 3, p. 45-47.
- _____, 1971, Preliminary correlation of rocks in southwestern Connecticut: Geological Society of America Abstracts with Programs, v. 3, p. 34.
- Zen, E-an, Hall, L.M., Osberg, P.H., Robinson, Peter, and Thompson, J.B., Jr., 1972, A lithologic map of the New England states and eastern New York: U.S. Geological Survey, Open-file report, 18 sheets, scale 1:25,000.
- Grauert, Borwin, and Hall, L.M., 1973, Age and origin of zircons from metamorphic rocks in the Manhattan Prong, White Plains area, southeastern New York: Carnegie Institution of Washington, Yearbook 72, p. 293-297.
- _____, and _____, 1974, Rb-Sr isotopic study on small whole-rock slabs and their minerals from the Manhattan Schist, Manhattan Prong, New York: Carnegie Institution of Washington, Yearbook 73, p. 1007-1010.
- Hall, L.M., Helenek, H.L., Jackson, R.A., Caldwell, K.G., Mose, D.G., and Murray, D.P., 1975, Some basement rocks from Bear Mountain to the Housatonic Highlands. *In* Ratcliffe, N.M., ed., Guidebook for field trips in western Massachusetts, northern Connecticut and adjacent areas of New York: New England Intercollegiate Geological Conference 67th Annual Meeting, City College of C.U.N.Y., p. 1-29.

- Hall, L.M., 1976, Preliminary correlation of rocks in southwestern Connecticut. *In* Page, L.R., ed., Contributions to the stratigraphy of New England: Geological Society of America Memoir 148, p. 337-349.
- Dallmeyer, D.R., Drake, A.A., Dunn, D.E., Hall, L.M., Tull, J.F., and Osberg, P.H., 1978, Time-of-deformation map for the Appalachian orogen: Geological Society of America Abstracts with Programs, v. 10, p. 38.
- Robinson, Peter, Hubert, J.F., Wise, D.U., and Hall, L.M., 1978, The "Juratrias" of Emerson (1898) on the new Massachusetts geologic map: Geological Society of America Abstracts with Programs, v. 10, p. 82-83.
- Dallmeyer, D.R., Drake, A.A., Dunn, D.E., Hall, L.M., Tull, J.F., and Osberg, P.H., 1978, Time-of-deformation map for the Appalachian orogen: Geological Society of America Abstracts with Programs, v. 10, p. 166.
- Hall, L.M., 1978, Geological contributions and local compilation of eastern New York and Connecticut. *In* Williams, Harold, compiler, Tectonic lithofacies map of the Appalachian orogen: Memorial University of Newfoundland, color map in two sheets, scale 1:1,000,000.
- _____, 1978, Contribution of compilation of carbonate bedrock geology in Connecticut. *In* Meade, D.B., Map of groundwater availability in Connecticut: State Geological and Natural History Survey of Connecticut, Connecticut Natural Resources Atlas, Groundwater Map, color map, scale 1:125,000.
- _____, 1979, Bedrock geologic map of the White Plains quadrangle, Open File Report No. 79-1701, New York State Museum and Science Service, Geological Survey, Albany, New York.
- Mose, D.G., Eckelmann, F.D., and Hall, L.M., 1979, Age-determination and zircon morphology studies of the Yonkers and Pound Ridge Granite Gneisses in the Manhattan Prong, southeastern New York: Geological Society of America Abstracts with Programs, vol. 11, p. 45-46.
- Mose, D.G., and Hall, L.M., 1979, Rb-Sr whole-rock age determination of Member C of the Manhattan Schist and its bearing on allochthony in the Manhattan Prong, southeastern New York: Geological Society of America Abstracts with Programs, v. 11, p. 46.
- Hall, L.M., and Robinson, Peter, 1979, Stratigraphic-tectonic boundaries related to Taconian convergence in southern New England: Geological Association of Canada and Mineralogical Association of Canada, Program with Abstracts, v. 4, p. 55.
- Robinson, Peter, and Hall, L.M., 1979, Stratigraphic-tectonic boundaries related to Acadian convergence in southern New England: Geological Association of Canada and Mineralogical Association of Canada, Program with Abstracts, v. 4, p. 74.
- Hall, L.M., 1980, Timing and distribution of regional structural elements in New England (abs.). *In* Wones, D.R., ed., Proceedings, The Caledonides in the U.S.A.: IGCP Project 27: Caledonide Orogen, Department of Geological Sciences Memoir No. 2, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p. A11.

- _____, 1980, Basement-cover relations in western Connecticut and southeastern New York (abs.). *In* Wones, D.R., ed., *Proceedings, The Caledonides in the U.S.A.: IGCP Project 27: Caledonide Orogen*, Department of Geological Sciences Memoir No. 2, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p. A15.
- _____, 1980, Basement-cover relations in western Connecticut and southeastern New York. *In* Wones, D.R., ed., *Proceedings, The Caledonides in the U.S.A.: IGCP Project 27: Caledonide Orogen*, Department of Geological Sciences Memoir No. 2, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p. 299-306.
- Robinson, Peter, and Hall, L.M., 1980, Tectonic synthesis of southern New England. *In* Wones, D.R., ed., *Proceedings, The Caledonides in the U.S.A.: IGCP Project 27: Caledonide Orogen*, Department of Geological Sciences Memoir No. 2, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p. 73-82.
- Drake, A.A., Jr., Hall, L.M., and Nelson, A.E., 1981, Basement and basement-cover relation map of the Appalachian orogen: *Geological Society of America Abstracts with Programs*, v. 13, p. 6.
- _____, _____, and _____, 1981, Basement and basement-cover relation map of the Appalachian orogen: *Geological Society of America Abstracts with Programs*, v. 13, p. 129.
- Hall, L.M., and Robinson, Peter, 1982, Stratigraphic-tectonic subdivisions of southern New England. *In* St.-Julien, P., and Beland, J., eds., *Major structural zones and faults of the northern Appalachians: Geological Association of Canada Special Paper 24*, p. 15-41.
- Wiener, R.W., McLelland, J.M., Isachsen, Y.W., and Hall, L.M., 1982, Geology of the Adirondack Mountains, New York: Review and synthesis: *Geological Society of America Abstracts with Programs*, vol. 14, p. 95.
- Jackson, R.A., and Hall, L.M., 1982, An investigation of the stratigraphy and tectonics of the Kent area, western Connecticut. *In* Joesten, Raymond, and Quarrier, S.S., eds., *Guidebook for fieldtrips in Connecticut and south central Massachusetts: New England Intercollegiate Geological Conference 74th Annual Meeting, The University of Connecticut, Storrs; and State Geological and Natural History Survey of Connecticut, Guidebok No. 5*, p. 213-246.
- Jaffe, H.W., Jaffe, E.B., Ollila, P.W., and Hall, L.M., 1983, Bedrock geology of the High Peaks region, Marcy massif, Adirondacks, New York: Field guidebook for friends of the Grenville meeting, Sept. 30, Oct. 1, and Oct. 2, 1983, Contribution No. 46, Department of Geology and Geography, University of Massachusetts, Amherst, Massachusetts, 78 p. and fold-out map.
- Wiener, R.W., McLelland, J.M., Isachsen, Y.W., and Hall, L.M., 1984, Stratigraphy and structural geology of the Adirondack Mountains, New York: Review and synthesis. *In* Bartholomew, M.J., ed., *The Grenville Event in the Appalachians and related topics: Geological Society of America, Special Paper 194*, p. 1-55.

- Powell, Derek, Anderson, T.B., Drake, A.A., Jr., Hall, L.M., and Keppie, J.D., 1984, The nature and role of basement rocks in the Caledonide orogen: Abstracts, Glasgow 1984 Symposium, IGCP Project 27, The Caledonian/Appalachian Orogen.
- Spinek, T.R., and Hall, L.M., 1985, Stratigraphy and structural geology in the Bethel area, southwestern Connecticut. *In* Tracy, R.J., ed., Guidebook for fieldtrips in Connecticut and adjacent areas of New York and Rhode Island: New England Intercollegiate Geological Conference 77th Annual Meeting, Yale University, New Haven, Connecticut; and State Geological and Natural History Survey of Connecticut, Guidebook No. 6, p. 219-240.
- Panish, P.T., and Hall, L.M., 1985, Geology of the Mt. Prospect region, western Connecticut. *In* Tracy, R.J., ed., Guidebook for fieldtrips in Connecticut and adjacent areas of New York and Rhode Island: New England Intercollegiate Geological Conference 77th Annual Meeting, Yale University, New Haven, Connecticut; and State Geological and Natural History Survey of Connecticut, Guidebook No. 6, p. 443-489.
- Hall, L.M., 1986, Hypothetical model for the development of the Tay nappe, p. 324-326 of Fettes, D.J., Harris, A.L., and Hall, L.M., The Caledonian geology of the Scottish Highlands. *In* Fettes, D.J., and Harris, A.L., eds., Synthesis of the Caledonian Rocks of Britain: NATO Advanced Science Institute series; Series C: Mathematical and physical sciences, vol. 175, D. Reidel Publishing Co., Dordrecht, Holland, p. 303-334.
- Drake, A.A., Jr., Hall, L.M., and Nelson, A.E., in press, Basement-cover relationships in the Appalachians of the United States: U.S. Geological Survey Map.
- Drake, A.A., Jr., Hall, L.M., Hatcher, R.D., Osberg, P.H., and Tull, J.F., in press, Time-of-deformation map of the United States Appalachians: U.S. Geological Survey Map.
- Hall L.M., in press, Bedrock geologic and brittle fracture maps of the White Plains quadrangle, New York: U.S. Geological Survey Bulletin.
- Powell, Derek, Anderson, T.B., Drake, A.A., Jr., Hall, L.M., and Keppie, J.D., 1988, The nature and role of basement rocks in the Caledonide orogen. *In* Harris, A.L., ed., The evolution of the Caledonian/Appalachian orogen: Special Publication of The Geological Society, London (in press).
- Hall, L.M., and Roberts, David, 1988, Timing of Ordovician deformation in the Caledonides. *In* Harris, A.L., ed., The evolution of the Caledonian/Appalachian Orogen: Special Publication of The Geological Society, London (in press).
- Rankin, D.W., Hall, L.M., Drake, A.A., Jr., Goldsmith, Richard, Ratcliffe, N.M., and Stanley, R.S., 1988, Proterozoic evolution of the rifted margin of Laurentia. *In* Hatcher, R.D., Jr., Thomas, W.A., and Viele, G.W., eds., The Appalachian/Ouachita orogen in the United States: The Geology of North America, vol. F-2, Geological Society of America, Boulder, Colorado (in press).
- McLelland, J.M., Isachsen, Y.W., Hall, L.M., Wiener, R.W., and Whitney, P.R., in press, The Adirondack massif. *In* Reed, J.C., Jr., Houston, R.S., Rankin, D.W., Reynolds, M.W., Silver, L.T., and Sims, P.K., eds., Precambrian: Conterminous United States: The Geology of North America, Geological Society of America, Boulder, Colorado.

