A MAN OF STRONG OPINIONS

Teller on the Cold War & Science

Excerpted from an August 1979 interview

Hungarian-born physicist Edward Teller is widely acknowledged as one of the nation’s most influential and outspoken scientists. In this interview, he presented some views on the Cold War, of the future of science, and the world.

I went back to Chicago, [after the war] where I had an invitation to work on what I wanted with good friends. There was James Franck, a

SPECIAL RECOGNITION

Thank You to our Great Volunteers

April is Volunteer Appreciation Month, and we would like to take this opportunity to thank all of the wonderful volunteers who help in the Museum, Archives, publications, administrative offices, and much more. We truly could not do everything that we do without you!

In the museum, volunteers meet with visitors to share our history, sell items in the Museum Shop, take in donations to the archives, answer questions about the community, and serve as the “face” of the museum as well as its guardians. They staff the museum every weekday, more than 300 days each year.

Among their many activities in the archives, volunteers help catalog donated items, organize donations, and transcribe oral histories.

Our office volunteer has
Upcoming Lectures and Events

Los Alamos National Bank-sponsored Lecture Series. All lectures are at 7:30 p.m. in the Pajarito Room of Fuller Lodge.

March 13: John Hopkins, “Los Alamos and the Cold War.” Hopkins, retired Associate Director for Nuclear Weapons at Los Alamos National Laboratory, helped win the Cold War. He will talk about the role Los Alamos played in this often-overlooked segment of history.

April 10: Terry Foxx and John Hogan, “Los Alamos Then and Now.” Ecologists and conservationists Foxx and Hogan will share how the landscape of the Pajarito Plateau has changed over the last 100+ years.

May 8, 6 p.m.: Annual Meeting and Ice Cream Social featuring Richard Melzer. A history professor at UNM-Valencia and one of our most popular speakers, Melzer will talk about “New Mexico’s Struggle for Statehood Featuring Political Cartoons Before 1912 Concerning New Mexico’s Image.”

Museum Exhibits

March 1-31: Inspired Excellence–Marie Curie and Lise Meitner, an exhibit from the National Museum of Nuclear Science and History

April 1-May 31: Los Alamos Then and Now–An Environmental History

June 1-July 31: Pot Sherds

Brown Bag with the Collection

May 1, 2012: 2nd Annual What’s In Your Historic Collection?

August 7, 2012: Textiles in the Collection

November 6, 2012: Petroglyph photos

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Mission

The Los Alamos Historical Society preserves, promotes, and communicates the remarkable history and inspiring stories of Los Alamos and its people for our community, for the global audience, and for future generations.

Vision

Los Alamos Historical Society is respected worldwide as the source and repository for the compelling history of Los Alamos and its people from prehistory to contemporary times.
(CONTINUED FROM PAGE 1)

been cleaning out and organizing files, helping with membership reminders, and assisting in other administrative tasks.

Members of the Publications Team help choose manuscripts to publish, edit, design, and promote our books.

The Historic Properties Committee oversees the Romero Cabin and the Oppenheimer House, assisting with everything from repairs to tours and more. They have recently completed a Historic Structures Report for the Oppenheimer House, a document that discusses the building’s history and the steps the Historical Society will have to take when the building is open to the public in the future.

Finally, we would like to add a special thank you to our terrific board of directors who work behind-the-scenes and put in long hours to ensure that the Los Alamos Historical Society is doing everything it needs to do and will do so into the future.

In other words, our volunteers make it possible for the Society to function!

All of our past and present volunteers will be honored at tea on Tuesday, April 24, from 2-4 p.m. in Fuller Lodge.

**Museum Docents**
- Jerry Dummer (Coordinator)
- Bobbe Armstrong
- Ann Beyer
- Margie Bruell
- Brian Harmon
- Harry Martz
- Don Panton
- Doug Reilly
- Betty Robertson
- John Ruminer
- Richard Shaner
- Ruth Sherman
- Aimee Slaughter
- Beth Aeby Teel

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- Molly Spingler

**Office Volunteer**
- Alma Sondreal

**Tour Volunteers**
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- Bert Dennis
- Betty Robertson
- Tom Sandford
- Renate Zinn

**Outreach Volunteers**
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- Georgia Strickfaden

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**Historic Properties**
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- Shay Burns Kendricks
- Art Montoya
- Kate O’Donnell
- Todd Urbatsch
- Mike Wheeler

Special thanks to some recently retired volunteers for all their years of service:

**Shirley Miller and Beverly Stratton**
HISTORICAL MUSEUM WELCOMES EDUCATOR
RAFFI ANDONIAN

We are pleased to announce that Raffi Andonian has joined the staff as Museum Educator. Raffi recently worked at the Friends of the Camino Real and has spent summers at various National Park Service sites, including Gettysburg (pictured) and the Martin Luther King, Jr. House.

Raffi is excited about building upon the long-established Outreach Suitcase Program while expanding programs and exhibits the museum has for younger visitors. He will be working with schools and various community organizations such as the Bradbury Science Museum and the Pajarito Environmental Education Center to help share Los Alamos history with more audiences.

WEEKEND STAFF DOCENT
KIM ANN RODGERS

We are also happy to welcome aboard Kim Ann Rodgers, a Los Alamos native and a Hilltopper. Kim’s parents were long-time residents of Los Alamos, and she loves sharing the history of her community with visitors from all over the world. Stop by and visit her on the weekends, 11-4 on Saturdays and 1-4 on Sundays.
Teller Expounds on Energy, Science, and the Cold War

(Continued from Page 1)

Nobel Prize winner, whom I had known in my days in Göttingen, and we spent many wonderful hours together. I worked with another Nobel Prize winner, Enrico Fermi, and this was the greatest of all pleasures. I worked with Mari Mayer, who later was to get the Nobel Prize, and with Chen Yank, who also got the Nobel Prize and who was my student. These were only some of them, and I enjoyed it thoroughly, particularly after getting out of Los Alamos, where all of us, in the isolation of the Second World War, learned how to appreciate the things we did not have at that time: grass and the opportunity to see strangers.

This was not to last. Some believed that the power of the United States, supported by the atomic bomb, could keep the peace forever. By ’49, the Russians had the atomic bomb and it was clear that they were reaching for more.

I had been interested in the hydrogen bomb, much more powerful, much more versatile, and a little more difficult. I had been interested in it for many years. The knowledge that the Russians had gone ahead came while I was on an extended visit to Los Alamos. I did not want to work on it; I wanted to help. I went to the best people who could have worked on it—Fermi and [Hans] Bethe. They refused. Another great physicist, Ernest Lawrence, came to me and told me, “There is no time to lose; we must work on it.”

I was motivated in one additional way, which, in my own feeling, outweighed the rest. Here was something that had never been done before. We knew how to split the atom. We did not know how to put atoms together, how to perform fusion. The scientific challenge was great and seducing. I could not act differently than to work on it and to persuade others to work on it.

That was not easy because the administration of Los Alamos was against it. The Scientific Advisory Committee of the Atomic Energy Commission was almost unanimously against it. Most of the scientific leaders considered it first, wrong morally, and then, not feasible. I did not know that it was feasible, but I saw enough ways that I was quite confident that it would be done.

It was done, but in the course of doing it a deep and most regrettable cleavage appeared in the scientific community which developed further, and in the end, gave rise in many young people, not only to an antimilitary, but even to an antiscientific attitude. Einstein—who had very little to do with the whole job, except that at one point his signature was used by [Leo] Szilard to start the ball rolling—Einstein said, “I would rather have been a plumber.”

The job was not easy. It was done by many people. What I claim, if indeed I have any merit, is that I stuck with it until I was sure it would be done.

Then, because I saw that in Los Alamos itself the people in charge were against further development in the long run, I left Los Alamos and started to argue for a second laboratory to make sure the work would progress. Today, the two laboratories, Los Alamos and Livermore, complement each other.
other. They provide competition, which is necessary. And it is friendly competition, with complete exchange of information and with progressively more and more mutual help.

The day came, not long after Livermore got started—where I then spent my days—when the first hydrogen bomb had to be tested. I observed it in the basement of the Geology Building in Berkeley, looking at the earthquake signal. I sent to Los Alamos an unclassified wire which was the first information Los Alamos had. The text of the wire I sent to my friend, Jane Hall, was “It’s a boy.” In that age, antedating Women’s Lib, she understood the meaning.

In the twentieth century, there has been a great and dramatic change in science and technology. In the first 30 years, there was a blossoming of new ideas which I believe has not been paralleled by the Greeks, by Galileo, by Newton, by anybody. The ideas entering into Einstein’s relativity, into Bohr’s atomic theory and quantum mechanics appear to be crazy, contradictory to common sense. Time is not the same everywhere; the real world is not quite so real, because the very observation we make of the real world already influences it. Yet the result was not only verified but led to an enormous simplification of nature and to a tremendous increase in the power of science.

In the same period, incidentally, mathematicians had a discussion whether everything can be proven, at least in mathematics, and this discussion ended in the remarkable accomplishment of [Kurt] Godel—that mathematics is an open science. In any branch of it, questions can be asked who answer is not yes and not no. The third is not excluded; the third being that you can postulate a yes or a no answer and that can give rise to ever new branches of mathematics.

Then this flood of new ideas stopped. Science did not. Observations went on, but almost all of the observed world had been explained down to, but not quite including, the atomic nucleus. Now we are faced with the situation which requires ever more work, ever more money, for a little additional information. To organize that into a new theory, we lack enough data and we lack the kind of contradiction—apparent contradiction—almost real contradiction between data that is apt to drive science forward and force us to have truly and radical new ideas.

In the 1930s, science started to change and science-based technology became the most fruitful field. Science itself needed more and more apparatus, and science and technology, which in past centuries had relatively little connection, became intertwined so that we now can hardly think of one without the other. This is the age of atomic energy, of space, of computers—the electronic thinking machines. I want to talk about that field in particular for a very short time because it could have remarkable consequences in addition to those consequences which most people know and

The Ivy-Mike test in 1951 was the first test of the hydrogen bomb.
which are remarkable enough. The great mathematician, Johnny von Neumann, started this practical enterprise, and to what it may lead is a better understanding of our own thinking processes, which Johnny von Neumann had already started to study.

I would like to ask a simple question: What is a joke? Books have been written about it. I don’t believe it. I can give a definition. I won’t have great faith in that, but I think I know a way to find out. I could teach a computing machine to write limericks and then publish a book of mixed limericks, half of them man-made, half of them machine made. The man-made ones should be newer and better. If the reader cannot tell the man-made and the machine-made limericks apart, then we know that in giving instructions to the machine we have found out what a joke is.

Now the development does not stop there. We are facing serious problems right now, energy problems. That’s the thing that is worrying me at the present time because without more energy, the developing world will never develop. We need energy from heaven and earth.

Nuclear energy is not the whole answer, by far, but it is a part of the answer, and those who try to tell us that it is too dangerous don’t know what they are talking about. They don’t happen to know that the big, regulated reactors, which equal in their output many and other energy sources, have not cost a single human life. That’s a better safety record than any of these other energy-producing industries.

I try to explain in my book [Energy from Heaven and Earth, published by W.H. Freeman & Co. Ltd. in August 1980] why we need nuclear energy, and solar energy, and oil, and coal, and geothermal energy on which Los Alamos and Livermore are making great contributions. We need all of them if we don’t want the Arabs to dominate our economy and don’t want to be at the mercy of the Russians when, as it easily may happen, the Russians gain influence and “Finlandize” Saudi Arabia, and Iran, and the whole of the Middle East. If they do so, we no longer have the power to stop them, because the Russians, concentrating on developing weapons, have overtaken us and are stronger in every military field today than we are. This is a condition that cannot be changed unless our scientists forget their old objections to nuclear power and technology, unless they realize that we are in fully as dangerous a situation as we were before the Second World War, when Roosevelt said that unless scientists work in the free world on weapons, freedom will cease to exist.

Now this brings up a very important question. With the great successes that science has had, what should be the role of the scientist? Well, I have very strong opinions on that. The scientist should make science. If he doesn’t, nobody will. And following Hiroshima, perhaps in part as a protest against Hiroshima, the scientists had first seized [the opportunity] to question technology and then the young people started to question science itself. America no longer has a leadership role in technology and is barely hanging on to its leadership in science. That others do a lot, that’s fine; that we should do less is very dangerous.

I would like to conclude with a very old story and a good one. It is said that Gertrude Stein, when on her deathbed, was asked, “What is the answer?”

To which she replied, in a failing voice, “What is the question?”

I can tell you what the question is. The
question is survival, not individual survival—I’ve had a long and happy life and it won’t last much longer. It is the survival of human communities, survival of ideas. Some human communities may be threatened by atomic weapons, not the whole of mankind; that is a fable. But whether America will survive the ‘80s and, indeed, will reach the year 2000 is a most serious question. With Russia in the lead, with Russia determined to spread the benefits of the Communist Revolution over the whole globe under their own competent leadership, America’s bid for freedom, for freedom shared by everyone, will not survive without some reliance on arms.

The question is whether freedom and all the ideas of the Renaissance—of the Enlightenment, of the modern world, of free speech, of respect for the individual—whether all these will survive. The question is whether we can think freely, because the Russians know the answers and that excludes free thought. If we can find the question and understand that freedom is at stake for the whole world, so that we have the freedom to use, rather than misuse, the fruits of technology; if we find that question, then the answer, in the minds of billions of people, will take care of itself.

As part of the Los Alamos Historical Society’s celebration of “100 Years of Los Alamos History and New Mexico Statehood,” the month of March is dedicated to the Cold War. Join us on Tuesday, March 13, at 7:30 p.m. in Fuller Lodge for a lecture by John Hopkins, former weapons director for the laboratory, on the role of Los Alamos in the Cold War.

New in the Museum Shop

**Steps of Courage: My Parents Escape from Nazi Germany**
by Bettina Hoerlin
(The author’s parents came to Los Alamos when her father worked on the Manhattan Project.)

**Code Talker: The First and Only Memoir by One of the Original Navajo Code Talker of World War II**
by Chester Nez

Stop by or visit our website at www.shop.losalamoshistory.org
505-695-5250
Construction Progresses on New Archives Building

Construction on the new Los Alamos Historical Archives, part of the Los Alamos Municipal Building, has continued over the winter months. The project is design-build, which means construction work goes on while plans for the building are still being developed. The Historical Society’s Archives and Collections Committee continues to meet with architects, engineers, and other building specialists about the new purpose-built facility that will house the documents, photos, and artifacts of the museum collection.

The Society has applied for a grant from the National Endowment for the Humanities to plan the storage area design and shelving. New mobile shelving units, specially manufactured to store museum collections, everything from photographs and saddles to paintings and skis, will help protect the collection and allow the new space to be useable for twenty years or more.

The new building will be ready for occupancy in October 2013. We will continue to keep our members updated on developments.

Tour Trinity With Us

On Saturday, April 7, the Los Alamos Historical Society, in conjunction with Buffalo Tours, is hosting a tour to the Trinity Site, ground zero of the first atomic test on July 16, 1945. The tour:

- Departs Los Alamos at 6:30 a.m. on aboard restroom-equipped coach
- Provides rest stops en-route, 2 hrs. at Trinity and the McDonald Ranch House
- Includes lunch in Socorro
- Will return to Los Alamos about 6:30 p.m.

Cost: $115/person includes transportation, lunch, and Trinity/Manhattan Project veterans as resource people, including Jack Aeby, who took the only known color photo of Trinity.

Payment to the Los Alamos Historical Society is due at time of reservation, check or cash preferred, but credit cards accepted. Please contact our offices at 505-662-6272 or e-mail historicalsociety@losalamoshistory.org for more information or to sign up for the tour.
Community Conversation Begins on Historic House

The Los Alamos Historical Society sponsored a 1940s-themed Community Tea and Conversation on Sunday, Feb. 26, in Fuller Lodge to begin the interpretive planning process for the Oppenheimer House. Seventy members from the community, from educators to representatives of arts groups to business leaders came together to talk about unique ways the community might use the house to tell Robert Oppenheimer’s story.

This conversation is the first step in developing what is known as an “interpretive plan” for the house. This plan will spell out different ways of communicating Oppenheimer’s story and the culture of life in Los Alamos during the Manhattan Project.

Background

Helene and Jerry Suydam, who first moved into the Oppenheimer House in the 1950s, signed a life trust agreement with the Historical Society in 2003 that gave the Society ownership of the house and allowed the Suydams to live in it as long as they desire. In 2008, the Suydams generously forgave the debt associated with the agreement, allowing the Society to use to funds originally set aside to purchase the house toward its maintenance and eventual opening to the public.

In September 2010, the Society hosted a symposium of historians, preservationists, and community members, co-sponsored by the New Mexico Humanities Council and the National Trust for Historic Preservation, to help develop ideas for making the Oppenheimer House a public history institution. Symposium participants determined that the house should become a museum that honors Oppenheimer but should also become an integral part of the community through partnerships and creative programs. One of the major goals that came out of the symposium was the development of an interpretive plan.

Interpretive Plans

Interpretive planning addresses visitor experiences, including interpretation, orientation, education, safety, and resource protection. Developing an interpretive plan is a goal-driven process that recommends strategies to help the site achieve its mission and provide the best experience to visitors.

Interpretation is a museum term that means a communication process, designed to illuminate meanings and connections to our cultural heritage, through involvement with objects, artifacts, landscapes, and sites. Interpretation is not simply presenting information, but a specific communication
strategy that is used to translate information, from more technical jargon of the expert, to everyday language.

The Historical Society is working with consultant Candace Matelic, an expert who has prepared interpretive plans at sites around the country, on the Oppenheimer House.

**Community Conversation**

The Community Tea and Conversation was the first step in the interpretive planning process. The conversation began with what Los Alamos values, and some of the ideas included education, the community’s setting, and its safe, small-town atmosphere. From there, participants tied in those values to stories about Oppenheimer, such as his patriotism, the social and political context of his time, and the role of government in science. Finally, dozens of ideas for different ways of using the house, from the development of scout badges to 1940s cooking classes to martini parties like Oppenheimer had, were suggested. Many of these ideas were focused on different audiences, such as youth, families, senior adults, or heritage tourists.

**Next Steps**

Matelic will take all of the data gathered at the community conversation and coalesce it into useable interpretive and program suggestions. These ideas will be combined with profile information about Los Alamos such as census data, as well as information about visitors to the Los Alamos Historical Museum. Oppenheimer scholars will review the plans to ensure they are historically sound and accurate. Finally, the interpretive plan will be measured up against the Society’s strategic plan to make certain that the plan helps the Society meet its mission. All of that information together will form the interpretive plan.

The plan will enable the Society to approach volunteers, potential program partners, donors, and others with solid proposals. Ultimately, it will help provide dynamic visitor experiences to the public as they learn about the enigmatic and charismatic leader of the Manhattan Project.
The Los Alamos Historical Society and Museum

Open free of charge every day except New Year’s Day, Easter, Thanksgiving, and Christmas.

November to March, Monday to Friday 10-4, Saturday 11-4, Sunday 1-4

April to October, Monday to Friday 9:30-4:30, Saturday 11-4, Sunday 1-4

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