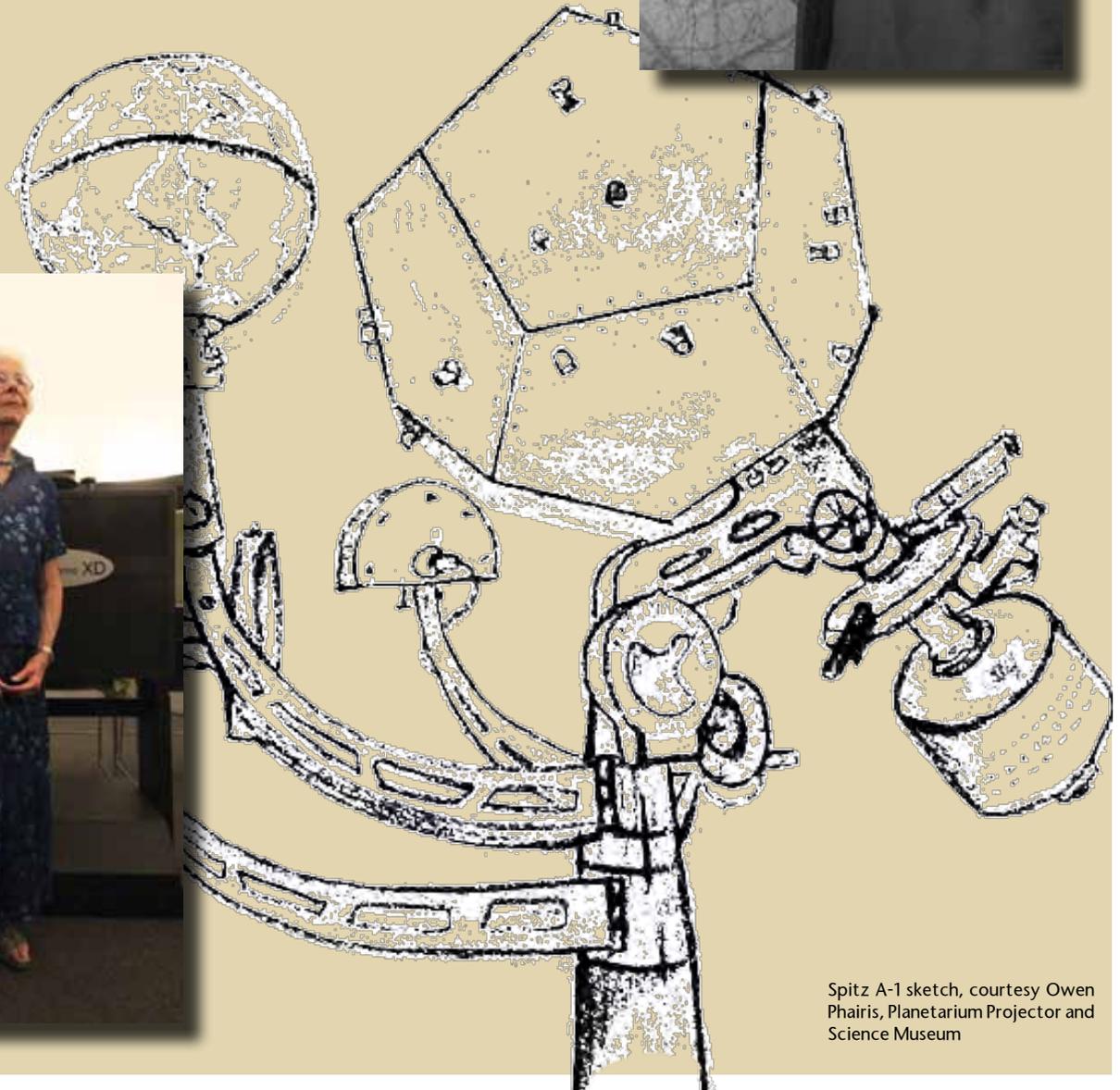


Who was Armand Spitz?

*Father, husband,
educator, innovator*



Early Life with Armand Spitz:
A Summer Planetarium History Adventure
Verne Spitz Rice, California
Joyce Towne, Spitz, Inc.
Chadds Ford, Pennsylvania



Spitz A-1 sketch, courtesy Owen Phairis, Planetarium Projector and Science Museum



"Prepare for Visitors from Outer Space."

Verne: That's how I began a message I sent to various friends and relations in May, shortly after I made up my mind to accept Joyce Towne's invitation to go east in July and talk about my father, Armand Spitz. A chance to describe him, as seen through my childhood eyes, to tell some stories and to set some records straight. What a lark!

Spitz Inc. would be participating in the Middle Atlantic Planetarium Society meeting in Maryland, and later would be holding the annual Summer Institute in Chadds Ford, Pennsylvania. Joyce thought attendees at both events might enjoy hearing what it was like to live with a father whose greatest love was the sky, and the stars and outer space. Having inherited some of his corny sense of humor, it had struck me that, as transplanted Pennsyl-

vanians, going east from California was tantamount to visiting from Outer Space.

JT: "We'll hear about the man Armand Spitz was before he became a planetarium innovator and our company founder," I explained to my boss. It would be an opportunity for us to meet and host Verne (Spitz) Rice, one of the only people on the planet who can share accurate stories and information about Armand. At 77, Verne doesn't travel out of California very often, so no time like the present.

She warned me she knew nothing about star projector design, the current state of planetariums, or the business side of her father's years founding Spitz Laboratories, way back in the 1940s and 50s.

Her first stop, the day after she flew east, was our manufacturing facility in Chadds Ford,

Top left: Baby Verne with Armand's telescope, and (below) as a young girl; top right: Armand to the right of Albert Einstein and winners of the Franklin Institute Science Fair in a photo taken at Princeton. Used with permission of Verne Rice. Bottom: History exhibit on display at Spitz Inc. this past summer included Armand's prototype soft soap can star "ball" and a Spilhaus clock which was a gift from the Rices to Spitz, Inc. Photo by Joyce Towne, used with permission.

Facing page: Top: Armand at the weather map, likely taken at the Franklin Institute weather center. Used with permission of Spitz, Inc. Below: Verne looking up at 30-ft dome. Photo by Scott Huggins; used with permission.



Top: Thomas Massey House in Pennsylvania, the house in which the Spitz family lived, located just outside of Philadelphia. The home is now open to visitors as an historic site that details the early settling of the area. For more information, go to www.thomasmasseyhouse.org. Photo used with permission. Below: Robinson Nature Center, Columbia, Maryland. Photo by Brad Rush, used with permission.

which she was about to see for the first time.

Verne: I had to admit, right off the bat, the only reason I recognized the soft soap can, my father's prototype instrument, in the lobby display was that I'd heard about it so much. But first-hand memory of it? Not a chance. One of the neatest benefits of this personal adventure in time travel—going backwards—was that it brought back memories I'd previously been unaware of.

I certainly remembered what A-1 looked like—but meeting one face-to-face after so many years was a real kick. As a card-carrying adult, I went back to school and became a psychotherapist. I can attest to the fact that even gathering photos and data about Armand for the talk was a flabbergasting joy: it far surpassed therapy (and it was cheaper, too).

JT: We gave Verne a whirlwind tour of the plant, and she met our staff, including several people who'd been at Spitz since its very early days (then called Spitz Laboratories).

Later, she talked at an informal luncheon. It was a fascinating collection of stories and im-

ages I hadn't seen before, including one photo taken at Princeton, of Armand posing with winners of the Franklin Institute Science Fair, which he'd organized. Standing front and center with them was none other than Albert Einstein.

Dodecahedron memories

Verne: First of all, I was sort of stunned when Joyce said that I was on the schedule for a lunch talk for Spitz staff. If I'd known ahead, I'd have had very cold feet, but it was a true blessing in disguise. My only rehearsals had been on home turf with a few close (and predictably forgiving) friends. In Chadds Ford it took only a few minutes to fall in love with the Spitz people, whose attentiveness, questions and laughter were warm enough that cold feet weren't a problem.

I shared with them the fact that not until I prepared my talk did I learn that (allegedly) Armand had consulted with Dr. Einstein about the best way to create a near-sphere through which to project the stars in an undis-

torted image. The solution: a dodecahedron, created at first from twelve plastic pentagons (later brass,) which became the basic structure of the first A-1 Spitz planetarium and a subsequent model.

JT: Later we drove to Columbia, Maryland, near where the Middle Atlantic Planetarium Society was to meet at the beautiful Robinson Nature Center. Spitz Inc. had helped design the NatureSphere. The theater, and the SciDome planetarium, are key parts of the Nature Center, offering a roster of demonstrations, classes and shows about astronomy, birds, bugs, bats and more.

Verne: (Speaking of insects: right after Joyce met me at the airport, she'd mentioned fireflies. I hadn't seen one in 44 years. She arranged a special al fresco display for me shortly thereafter.)

The only problem with our day at the Nature Center was not enough time to tour it. I got my first chance to see a digital planetarium in action—many generations younger and incredibly evolved from the ones I grew up with. Could this black box, about the size of a hotel-room refrigerator, really be a planetarium?

The soap can projector grows up

I knew Armand would have been delighted to see how remarkably his original soap-can vision of a projector had matured. I think he'd have been thrilled to see the way his passion for teaching astronomy had "exploded" into a medium for teaching about a universe of new areas of science.

I can't begin to describe what it was like for me to give the talk that afternoon. My audience was 50 or 60 "stars," mostly planetarium professionals; bright, shining and responsive. I opened with "my father's whole world revolved around science, even to the point of naming his daughter after a certain well-known 19th century science fiction writer." They got it (and my ego puffed up a bit in magnitude.)

I told stories of Armand's pre-planetarium (sometimes a bit peculiar) projects and mini-lectures, all preludes to the contributions he later made. One story went that when he and my mother, Vera, were courting, she had wondered aloud about the name of a particularly bright star. He said he didn't know, but he'd find out.

Hence began his first explorations into stars and planets and galaxies; he'd never had any formal training whatsoever in astronomy. Nor had he studied meteorology, nor physics, nor music, but there was something of the fundamental teacher in him.

Even more fundamental was that he was an ardent collector of the famous "one-man's trash" which becomes another man's treasure. I described the ancient, mostly bro-

ken-stringed zither he acquired, heavily laden with dust. It was too tired and warped to make music, but he could (and did) demonstrate that the more tightly he wound the metal strings (until they broke) the higher the tone they emitted when plucked.

A wheezing treasure

It got worse, I said, when he brought home a fairly large, very ill, pipe organ. Mind you, this to a fairly small house. This treasure, too, did not make music; it wheezed. Childhood friends took great pleasure in creating haunted-house sounds by treading vigorously on its worn-down pedals. And the harder they pedaled, he showed them, the higher the wheezy notes became—illustrating something about how wind instruments worked.

He hadn't studied psychology either, but he developed what I called a very effective behavioral intervention. When I was young, maybe five or six, I was scared of lightning and thunder. He taught me that when I saw lightning I was to begin counting "this second is one, this second is two", and clap my hands as hard as I could, and yell "NATURAL PHENOMENON" as loudly as I could. His theory was that I'd drown out the thunder, thereby taking control of the situation, so I had nothing to fear.

I couldn't have been more pleased at the audience's response. Several people remembered Armand's early work or had known him personally. I'd have loved to spend hours with them—they had rich and fascinating tales to tell me. And we had some handouts for them—one was an article that had appeared in the Franklin Institute News (December 1943), which I thought so brilliantly described him that I ended my talk by quoting it. (Copies available on request. Hint: there's a pretty neat story about the genesis of this article as well...)

But the MAPS schedule had plenty of great sessions yet to come that afternoon—and I had a ride to Virginia, to embark on my next step as a Visitor from Outer Space. Several old friends from the DC area had come to Maryland, and in the 10-day interlude between MAPS and the Spitz Summer Institute, my daughter, Abigail, and I planned to visit friends, relations, and several Armand-related scenes of my newly awakened astromemories.

Revisiting Washington was a treat—so much had changed since we made trips there when I was a kid, but so much was the same. The nuclear Spitz family never had vacations; we'd gone to museums and planetariums instead. In DC, we'd actually gotten to see a bit of non-scientific history as well as total Smithsonian immersion, with a distinct focus on aerospace.

Apart from spending time with good old friends, we re-entered the museum world with their daughter, who had worked at the



Verne with the audience after her talk. Photo by Scott Huggins, used with permission.

Holocaust Museum for several years. We were deeply moved, and I thought my father would have been much impressed with the way this museum told its story accurately, poignantly and with consummate taste.

Enjoying the firefly show

On a brighter note, the visit with our Virginia friends brought the second run of the Firefly Show Joyce had reminded me about and took me to, right after I arrived. I'd remembered fireflies fondly within minutes of first meeting her face-to-face. Fireflies, by the way, may not be quite as stellar as stars are, but they have the good wisdom not to colonize in California, where all is neon and synthesized!

Later on in our travels, I also spent time with new friends who were inextricably linked to Armand, his work and his many and varied passions. A bit of romantic history: In his later life, my father married Grace Scholz, an acquaintance of many years who had been a pillar, and at one time president, of the Astronomical League, the largest and most influential of several groups of amateur astronomers.

After Armand was appointed as a special consultant to the National Science Foundation and director of Project Moonwatch's visual satellite tracking activities, he and Grace recruited the lions' share of the amateur astronomers who constituted the national and international tracking teams.

Grace had a good friend, Mabel Smith, a colleague from her years at the Department of Health, Education and Welfare. I saw her while I was in DC. She has a remarkable memory for interesting Grace-and-Armand stories. During my father's long illness, she and

her daughter Lisa Roney's family spent many Sundays visiting and engaging Armand in long conversations, mostly about astronomy. This caring contact helped keep his never-disabled mind alert and enthusiastic. Lisa's husband, Milt Roney, teaches astronomy to seniors (through the Osher Lifelong Learning Institute) at Rock Creek Park Planetarium.

Back to the Franklin

We moved on to Philadelphia, and a highlight of our Armand Tour was going back to the Franklin Institute, where I'd spent many hours of my childhood. As a former journalist, my father had been hired as a writer and publicist; he later became Director of Education and a lecturer at the Fels Planetarium.

JT: Back in the 1930s and '40s, all planetarium shows were live, and the Franklin Institute had a strict policy that only degreed astronomers could present Fels Planetarium lectures. Armand knew he had what it took to enthrall an audience, and he worked diligently to practice, demonstrate, and finally get the policy waived in order to add planetarium lecturing to his repertoire.

Verne: The most interesting part of our Franklin Institute tour was seeing the room that our hosts thought might have been Armand's office. It was flush up against the outside of the planetarium dome. During my high school years, I'd walk to the Institute and do my homework while waiting for a ride home. Often classmates came with me to do algebra.

When the show of the month was "A Trip to the Moon," a door from the corridor outside the office would open. Quietly, a spaceman (clad in a uniform, remarkably out of the 60s and 70s, which were still a couple of decades in the future) would stride across the office. He'd open another door to a platform backlit so it showed through the dome, and demonstrate how to steer his craft directly moonward. My classmates were duly impressed, and I was certainly the only student at school who could offer them this particular after-school treat.

JT: That early planetarium show is legendary; I had heard about it when I worked at Fels. The rudimentary special effect was very dramatic. If you illuminate the area behind the Fels dome, you can still see the door with the circular airlock hatch "handle", about half way up to the zenith, leading from the rear work room (floor 2.5) to the catwalk behind the dome.

Verne: On another day, we visited our Old House, where Armand fielded Vera's question about the name of the star she saw. Then deep in the countryside and in primitive and shabby condition, it has been restored and is now called the Thomas Massey House, headquarters of the Delaware County Historical Society. We needed to see it because it was the site



Verne during her talk for the MAPS conference. Photo by Scott Huggins, used with permission.

and the source of many of Armand's whims, all of his curiosity about the heavens, and it was the engine driving his immense creativity.

My mother wrote a novel called *Earthshine*, never published because of the advent of World War II. It was partly a story of life in the Old House, but largely a memoir of the young Armand who, inspired and nurtured

by the fertile ground on which the House was built—and the absence of lights and smog—grew into being a fledgling astronomer, teacher and planetarium innovator.

About building a 5-foot model of the moon, with realistic craters right where they belonged, my mother Vera wrote:

"There is something to be said for a man who can make messes in the kitchen boiling cream of wheat in order to watch it bubble and break so that he can get a line on crater formation."

About building his first telescope:

"Taking down the stoves (the first part of the house was built in 1696) had given him an idea and, inspired by the lovely contours of a piece of stovepipe, he had started to build a telescope. . . . He used bits of this and that and the flat top of the big round stove was turned into a grindstone. On it he ground the mirror, which took 40 hours devotion and much perspiration, and after many weekends he had assembled the telescope, and it worked."

When we left the Old House, I thought of how it linked to the reason for our making this trip in the first place: to talk about Armand-before-the-planetarium. The words that came to mind were: It all started here.

The Visitors from Outer Space spent another week or so exploring Philadelphia, catching up with old friends, visiting my Penn roommate (Armand had gone there too), admiring and coveting east coast architecture and wonderful and affordable places to live. Perennial Foodies, we reveled in scrapple, hoagies, and Bassetts ice cream, Armand's lifelong favorite.

We are theatre lovers. (My father, who played Hamlet in high school, got me addicted early on to drama—or to anything that happens on the stage.) Abi comes by it genet-

ically. We share an infatuation with another kind of Star, so we made a hasty trip to Manhattan and Times Square to see a show opening on Broadway.

The Grand Finale to our trip was back at Spitz Inc., where I spoke at the company's Summer Institute. This time the setting was inside a 9-meter dome, which gave me goosebumps because it felt like a back-to-the-womb experience. I felt as if everyone there—mostly people I'd never met, who'd come to learn how to teach with digital planetariums—was part of my family.

They were there to honor Armand, to hear about how he came to make the contributions he had, and to be as awed as I am about what's happening now and about the future Spitz promises to the world of astronomy education.

I told them I thought that they—astronomers, planetarians, educators, museum staffers, those who were at the Summer Institute, even people who just love to look into the sky—all were Armand's legacy.

What he wanted most to do was to make the beauty, as well as the science, of the stars, the planets, the galaxies and the universe available to the eyes and hearts of all.

And in my audience were the people who would carry this legacy to the world.

JT: A recording of one of Verne's summer presentations, "Growing up With Armand Spitz" can be viewed at www.youtube.com/watch?v=6vVABX8r9U and includes many more stories.

Verne can be emailed at evrice@pacbell.net and is interested to hear from the planetarium community (especially if you have Armand stories to share). ☆