

Artist Leah Lubin
at the
**Kavli Institute for Particle Astrophysics
and Cosmology**

Located at the

SLAC National Accelerator Laboratory

Operated by Stanford University for the U.S. Department of Energy

Art Plus Science

Creating art using the influence of science and technology to explore and create new expressions and ways to see the Cosmos and abstraction of physical matter in the Universe.



Fig. 1. Leah's SLAC Badge

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Science Plus Art

by Leah Lubin

All great events have a beginning and this beginning in 1997 starts like this. On a gray windy day in 1997 in Mountain View, California, I was slowly carrying my artwork out of NASA Ames Research Center exhibit hall. The art show of my dreams, over after four months of joy. My curator, Jeff Cross, had allowed my work to stay up an extra two weeks, but over is over and the work had to come home.



Figures. 2, 3, 4 Leah's Exhibit at NASA Ames

Back in my home/studio in Woodside I began to realize that I had to come up with a plan, a strategy of new work created so perfectly that they would let me back in. In with a new exhibit of my artwork at NASA.

Why, you might wonder, where as an artist you can see if you care to look at my resume that I get plenty of other great locations to exhibit, and I am involved in spoken word and dance as part of my work.

Well, it's like this. My science-based abstract artwork and the cosmos paintings (mainly from the pictures provided by the Hubble Telescope) are about me on the core level. My father, a scientist, my experiences connected to the Technion, living on the Weizman Institute in Israel, previous relationships; this work is all about the real me. So, I know I must go on.

A plan was formed that took over the next six years of painting work. For the first four years, I painted the *Galactic Mysteries* full time. Six big paintings. Each one with a lyrical story, and a real image from the cosmos (again taken by NASA's Hubble Telescope). Before I start sharing the pictures and poetry regarding the six paintings, I want to share again that never in my long career did I dedicate approximately 8 working months to each painting, before or since.

The Galactic Mysteries

The lyrical words adjacent to the images and titles were written on the back of each piece as it was completed to add creative understanding the subject matter.



Fig. 5 The Great Gathering

“Deep space planets form mysterious gatherings that affect us all.”



Fig. 6 Galaxies Collide

“Colliding planets explode and change billions of miles from Earth.”



Fig. 7 Exploding Worm Holes & Time Travel

“Exploding worm holes, the key to time travel.”



Fig. 8 Black Hole Caught Red Handed

“Colliding planets explode and change billions of miles from Earth.”



Fig. 9 Massive Eruptions On Sun

“Colliding planets explode and change billions of miles from Earth.”



Fig. 10 Jupiter's Turbulent Clouds

“Clouds spin over Jupiter. The atmosphere full of gas giants. In colors of brown, red, and white. Ripples of cream swirling streams, a thousand storms whip the turbulent planet..”

As you can see, this was quite an endeavor. During the period that followed the painting, the work was framed and hung on my studio walls. The Peninsula Community Foundation honored the Galactic Mysteries with a \$1,500 grant, and by 2003 they were first shown at my studio home. Soon to follow were *Hale-Bopp: No Spaceship Behind Me*, *The Big Bang*, and *The Milky Way Galaxy*.



Fig. 11 *Hale-Bopp: No Spaceship Behind Me*



Fig. 12 *The Big Bang*



Fig. 13 *The Milky Way Galaxy*

So, the work was done and I had completed nine new art pieces, enough to warrant a new show I was sure. During the process, I e-mailed my NASA Ames curator, but was receiving a very light response because the visitor center no longer showed art. Eventually my curator's e-mail address no longer worked, and reality moved me towards thinking about what will happen to all this new work.

My colleague and friend, Prof. Mike Mosher, kept encouraging me to carry on, and eventually linked me with Leonardo's Spaceart group. Leonardo Journal previously published my written work with images of the Galactic Mysteries that went world-wide. (See <http://www.leahlubin.com/Literary/Leonardo/Leonardo.html>)

Life as an artist goes on, and great events in poetry, photo collage and other paintings kept me busy. My art career, now teaching adults, had me working in my fourth year at the Pacific Art League in downtown Palo Alto, CA. A unique place to work, it had always provided me with very gifted students, already artists in their own right, just ready to go further. It was the spring quarter of 2010, and this time one of my students, Renée Dorfan, introduced the pictures of my cosmos artwork to her husband, Dr. Jonathan Dorfan. Jonathan is Director Emeritus of the SLAC National Accelerator Laboratory in Menlo Park, CA. While director, he was central to the effort to establish the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC).

Now the story moves very quickly. Dr. Dorfan takes the pictures to Ziba Mahdavi, Managing Director of KIPAC. She likes them, e-mails me, and a meeting is set up for us to talk about bringing in the work. Yes, that quickly. I've only been waiting 13 years, and to find a building (I admit I didn't even know about) that would fit my work so perfectly as KIPAC; I was nearly home.



Fig 14. Kavli Institute For Particle Astrophysics and Cosmology

It was at this point that I wrote the poem *Getting My Smile Back*.

Getting My Smile Back

*I'm on a mission.
It involves getting
my smile back.*

*Major changes are afoot.
They involve you and me.
My art, your science,
my work, your buildings.
My life, your sanctuary.*

*I've grown, changed,
but remain the same.
Improved, replenished,
and the work remains
top notch.*

*And, that's what I
have to offer.
Soon united,
get ready to smile on.*

Life was looking a lot better and my hopes were rising for a home for the *Galactic Mysteries* and my other science based artwork too. But, first things first - get ready for the meeting. I packed the necessary pictures of artwork, and art/bio information. We were to meet in the upstairs lounge. The date set for June 2, 2010.

Arriving at SLAC, the guards jumped in front of my car, very attentive - it made me strangely happy. I tell them "I'm here to discuss bringing my artwork into the Kavli Building". And there on my right, the Kavli Building: Modern, grand, creative architecture, lots of glass and steel. My heart leaped.

After parking, we made our way in. My artist self greeted the building as we entered the ground level. Looking around, I noticed the big windows. We climbed up the stairs to the upper level lounge.

Greeted warmly by both Ziba Mahdavi, and Martha Siegel, we sat down and I did my presentation. All the while, the beautiful empty walls stared at me, and I stared back because clearly, the *Galactic Mysteries* were going there.

We settled on my bringing in 20 art pieces in two weeks. The Stanford maintenance crew would be hanging the pictures I was told - great news.

Two weeks passed quickly, and the 20 pieces placed carefully into our Ford truck bed, on June 18. Move-in day was here. Out of the 20, the two pieces I was most concerned about were my two most senior art pieces in the collection, and they represented the very beginning of my relationship with this style of work.

In the beginning, my language was limited and to expand my work I would visit the computer science department at the Weitzman Institute where I was living with my husband at the time who was a visiting scientist and teacher from America. The year was 1973. Computers took up a whole room. One large, big machine that left no room for anyone and anything, and spits out huge reams of paper constantly. I know some of you remember this, and know what I mean.

I was a London art college trained artist, and I knew it was up to me to be both original and modern. I picked up large handfuls of these sheets of paper on the floor and I created three new art pieces with the computer paper, and black and white paint. Two pieces sold in an upcoming solo show. I refused to sell the one I have left, *Black and White*. I believe it to be vintage, and it contains the original computer paper off the Weitzman Institute floor.



Fig. 15 Black and White

The second piece, *Infinity and the Egg*, my oldest and one of my most precious paintings, painted in 1974, represents the very first of a series of three cosmos paintings. I had moved on from computer paper and I found at the Ulman Library early Scientific American journals with those pictures of the cosmos. Yes, I was looking for something new to paint, but I didn't know I would lose my heart to the utter beauty that is our universally shared cosmos. There, available for all to see, belonging to no one, but everyone at the same time.



Fig. 16 Infinity and the Egg

Three new paintings were created and suddenly scientists who only nodded to me before stopped and talked. Again, in a solo art show at Israel's Rehovot Art Gallery one year later, I see the first two of those paintings quickly sell. I realized I must do something quickly. I grabbed a sold sticker, place it on *Infinity and the Egg*, and that is how I still own that artwork. So, how and where they would go up was important to me.

We parked as close to the Kavli Building as we could. Meeting us outside were Martha and Ziba. We pulled out all 20 pieces to show them off before taking them into the building when something very interesting happened. Out of all the artwork right there on the grass, Ziba spotted that the painting *In the Collection* wasn't a good fit for the building and the kind of science going on in there. And, you know what, she was right.

Although it is a science style abstract and looked really good in many exhibits including a show at Hewlett-Packard and San Jose, CA.



Fig. 17 In the Collection

It wasn't a good match, and I was impressed with her quick art assessment skills. In art, what you're saying is everything and although it was a very good piece, it wasn't a good match and promptly went back into the truck.

Nineteen pieces to go in and the past feels present here. We all start carrying in a piece or two at a time. With six paintings already in the building, and carrying two more, I was stopped on the stairs by someone going down. "What's this?" he says. "Have we robbed a museum?" Wow, what a welcome. He couldn't have been more flattering. I beamed.

Taking in the last piece, again I was stopped on the stairs. This time with a polite "Who is responsible for all this art?" he smiles and says. "Well, actually I am the artist" I say. He takes one look at me and immediately looks around me to see who else is really responsible. Strangely enough, that too made me smile, remembering the many times I too didn't believe it's my work. Really, but it is. A strange but true art secret is that we artists are forever trying to look like artists. Take Salvador Dali, who always arrived to every art opening in a chauffeur driven limo, two ladies on each side drinking champagne, and let's not even mention that high maintenance mustache. Not to be forgotten, the dear Impressionists in France would have to "create scenes" to get noticed when out to dinner with their talented colleagues.

By now you might be wondering "Wait a minute, what are all these art pieces reflecting and suggesting water?" Well, you're right. My first subject matter, as early as 15 years old and a young art student at the Hampstead Art Center in London, I started drawing and painting my memories of water.

I was born within walking distance to the Mediterranean Sea that lies next to the city of Haifa in Israel. The water is warm and a deep impressive greenish blue. You can get in and float even before you can walk, and it will lift you up and protect and inspire you. So, it's always been there as an inspiration point for my work. I love to break it down, imagine water as abstract, change its shape and challenge the eye. There are three art

pieces hanging at the Kavli Building that are inspired by water: *Into the Water*, *The Landing*, and *Waves*.

Well, what about the three pieces on Mars: *Mars On Earth*, *Mars At Night*, and *Mars*. Mars, my romantic planet; inspiration for books, movies, and suspicious aliens. When in truth, what we find there looks more like rocks water and gases. None the less, I love it.

All the work in, a place for each piece was found. We left to get some lunch. SLAC technicians come in and hang each art piece. Three hours later, we returned to find all the work hung beautifully.

Later, in a contract signing meeting in Martha's office, I mentioned to Ziba how the work seemed to be made for the building, the fit perfect and strong. I gave Ziba a binder I created with information on my art work to share with interest KIPAC employees and guests.

Returning home, I wrote more poetry regarding the whole experience:

Tales to Tell and Stories to Write

Life as an artist is long.
But, when you are also a writer,
it's endless with tales to tell,
and stories to write.

You're on all day long,
not necessarily producing,
but thinking it through,
planning, mapping it out.
Then, getting the work done.

When done, what's next?
Slowly it unravels.
The story of the work releases
and escapes into a world in love
with literature, art, and spoken word.

Like a Comet, She's Glazing Across Our Evening Sky

She stood up
crying no more.
Like a comet,

she's glazing across
our evening sky.

Not sad anymore.
She observes the
changes complete.

The sun finally up.
The stars firm
and solid where
they should be,
in our sky above
with us here on Earth.

Applauding their
beauty and grace,
raw and fulfilling.
Once more on her
true path.

The Window Is Now Open

The window of opportunity.
The window of life.
The window is now open.

Reach out.
Step up.
And, go through.

The Dreams That You Dream Really Do Come True

Once upon a time
I had a dream.
A perfection in life
that had many parts.

Part history.
Part art.
My truth.
Your truth.
All combined.
Out came good.
Great, even.

A dream comes true
with consequences
so large and complete
that whole life's
change and transform.

The new you, you know
was always available.
But, now is there for real,
and for keeps, too.

An e-mail from Leonardo Journal editor Roger Malina offered the opportunity to document the experience of moving my art into the Kavli Building opened another venue of sharing this experience with the Leonardo readers.

The cosmos and cosmos influenced art work is now up at the Kavli Institute for Particle Astrophysics and Cosmology right here in California.

"So, what now?" remains the question? I still have a large number art pieces, and continue to create more. They would fit and look fab on science building walls. The future is yet to be revealed.

Photographs of Leah's Work at the Kavli Building



Fig. 18 Fred Kavli Building, SLAC

On June 18, 2010, nineteen pieces of Leah's art work were installed at the Fred Kavli Building of the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) located at the SLAC National Accelerator Laboratory. This long term exhibit is now the viewing home of Leah's science and Cosmos work.

The art work goes back to Leah's early years of living at the Weizmann Institute in the 1970's. With a major exhibit at NASA Ames in 1997, the work developed to include the Galactic Mysteries series of paintings as well as more new pieces now being exhibited for the first time.



Fig. 19 Galaxies Collide, Jupiter's Turbulent Clouds, Black Hole Caught Red Handed



Fig. 20 The Great Gathering, Massive Eruptions On Sun, Exploding Worm Holes



Fig. 21 Black and White



Fig. 22 Deep Space One

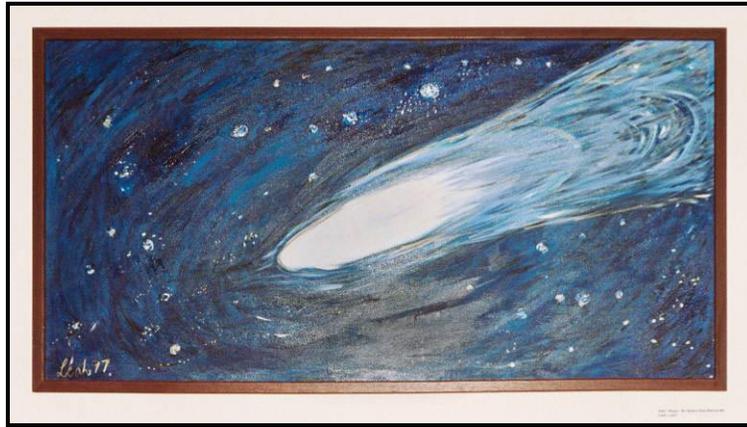


Fig. 23 Hale Bopp: No Spaceship Behind Me



Fig. 24 Infinity and the Egg



Fig. 25 Into the Water



Fig. 26 Mars At Night



Fig. 27 Mars On Earth, The Big Bang

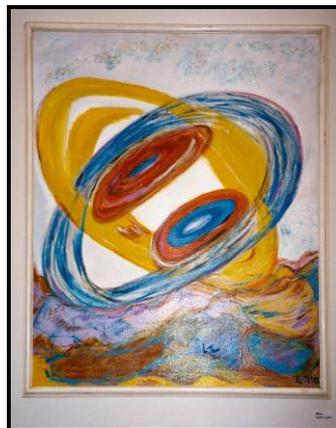


Fig. 28 Mars

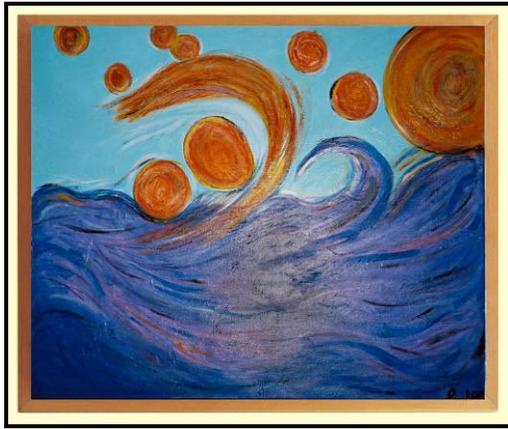


Fig. 29 The Landing

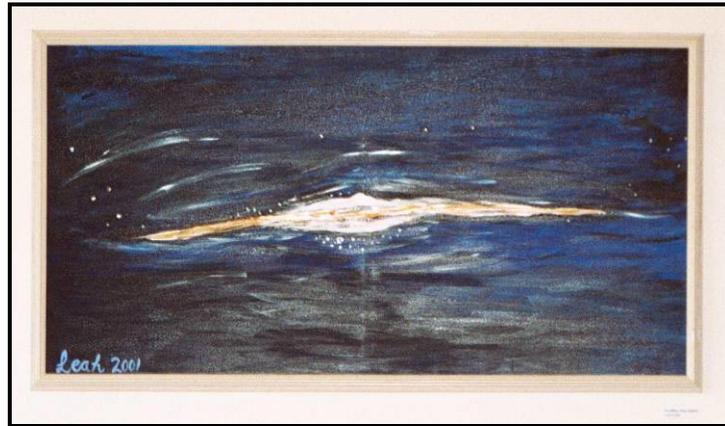


Fig. 30 The Milky Way Galaxy



Fig. 31 Waves



Fig. 32 Mars On Earth, The Big Bang, Waves



Fig. 33 Free Flow



Fig. 34 Leah near the Kavli Building at SLAC